

NATION'S BUSINESS

AUGUST • 1941





A Community of Continents

The telephone is helping the Americas to know each other better.

Business men talk over mutual problems. Relatives chat back and forth. Old friendships are renewed. New friendships are made. People thousands of miles apart are linked together by telephone.

Undersea cables, long land lines, and radio telephone channels unite twenty-eight countries,

colonies and territories of the Western Hemisphere — *all* are now our telephone neighbors. Cuba and Canada, the Argentine and Mexico, Chile, Brazil and the United States—all are within reach through a far-flung network of modern voice highways.

North America, South America and Central America are a closely knit telephone *community*. And that's an especially reassuring thought today.

Overseas Telephone Service *helps unite the Americas*

"The Telephone Hour" is broadcast every Monday. (N.B.C. Red Network, 8 P.M., Eastern Daylight Saving Time.)



WHITE HOPE of the BLACK GANG



IN THE DAYS of the wind-jammers, the dread scourge of the sea was—scurvy.

Then came steamships, and less time between ports. And while scurvy was beaten, a new malady stalked the seas.

A malady that struck fiercely, swiftly, in the boiler room, among the "black gang"... *heat cramps*.

Men working in intense heat in factories knew this mysterious malady, too. But no longer.

And what was the remedy? *Common table salt*... to make up for the loss of salt from the body in sweat!

But in modern ships and industrial plants, this salt isn't issued from the familiar table shaker. It is distributed in the form of Sterling Salt Tablets.

This is just one contribution that International makes to commerce and industry. For International salt or salt processes are vital to the tanning, dyeing and glass industries; to meat packing, canning and stock feeding; for snow and ice removal. And they are as important to as many other industries—which, at first glance, may not seem even remotely allied with so common a substance.

Would you like to test your knowledge of common salt? Just let us know where we can send you an interesting booklet, "*Salt by International*." The International Salt Company, Inc., Scranton, Pa. Rock salt, evaporated salt, lixated brine, Sterling table salt—for industry, agriculture and the home.

Don't Worry About A Power Shortage!

DON'T let a possible lack of power stop you. Labor and materials are worries enough for present day executives.

But don't worry about power!

Speedily, inexpensively and economically you can have a Fairbanks-Morse Diesel-generator furnishing you plenty of electrical power at exceedingly low cost.

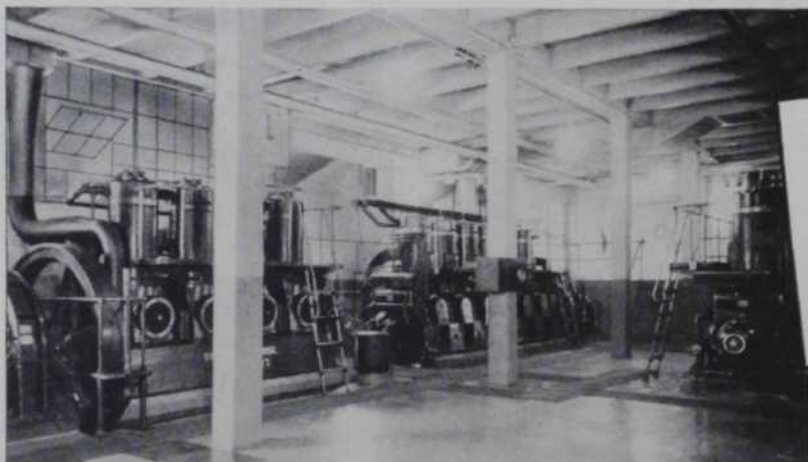
One little corner of your plant will house it and only part time attendance is necessary. *Then*, you will have an independent source of power unaffected by what may happen elsewhere.

And a Fairbanks-Morse Diesel is a good investment, too. It makes no service

charges, imposes no peak demand penalties, asks nothing for stand-by service.

Your Fairbanks-Morse Diesel purchased from present day profits will be a business asset for years to come in good, normal or bad times. Because its efficiency remains high under all load conditions, it does not penalize your unit power costs during valley production seasons.

A quick inquiry to Fairbanks, Morse & Co., Dept. H56, 600 S. Michigan Ave., Chicago, Ill., will start experienced power engineers on the job of determining what type and size Fairbanks-Morse Diesel will best fit your requirements.



PLENTIFUL FUEL FOR DIESELS

Fairbanks-Morse Diesels use a fuel oil which is in the nature of a by-product of many gasoline refineries. Hence it is always cheap and plentiful.

FAIRBANKS • MORSE DIESELS

MOTORS
PUMPS

ELECTRICAL MACHINERY
FAIRBANKS SCALES

RAILROAD EQUIPMENT
WATER SYSTEMS

WASHERS-IRONERS
FARM EQUIPMENT

STOKERS
AIR CONDITIONERS



DISASTER CAN STRIKE SO SUDDENLY

"The sun was shining only a few minutes ago . . . now look!"

Most disasters strike that way: Storms—fires—automobile accidents—thrift or loss of valuable property. There's one respect, however, in which people are more fortunate than they used to be. They can insure against more of life's hazards—and at lower cost.

To make the buying of insurance as easy as the buying of other necessities, the Aetna Fire Group sell only through local agents or brokers.

When your insurance program is under their watchful eyes, you are sure of expert advice on what policies to carry . . . you can have changes made at an instant's notice . . . and you know just where to turn in event of loss.

Here is another money-wise insurance fact. Policies with a capital stock company are backed by *both* a paid-in capital and surplus. You are never liable for assessment.

**Don't Guess About Insurance
—CONSULT YOUR LOCAL
AGENT OR BROKER**

WARS	CONFLAGRATIONS	DEPRESSIONS
1846 Mexican War	1835—New York City	1819
1861 Civil War	1845—New York City	1837
1898 Spanish-American War	1851—San Francisco	1843
1917 World War	1866—Portland, Me.	1857
	1871—Chicago	1873
	1872—Boston	1893
	1877—St. John, N.B.	1907
	1889—Seattle; Spokane	1921
	1901—Jacksonville, Fla.	1929
	1904—Baltimore	
	1906—San Francisco	
	1908—Chelsea	
	1914—Salem	

Since 1819

through conflagrations, wars and financial depressions, no policyholder has ever suffered loss because of failure of the

Aetna

to meet their obligations.

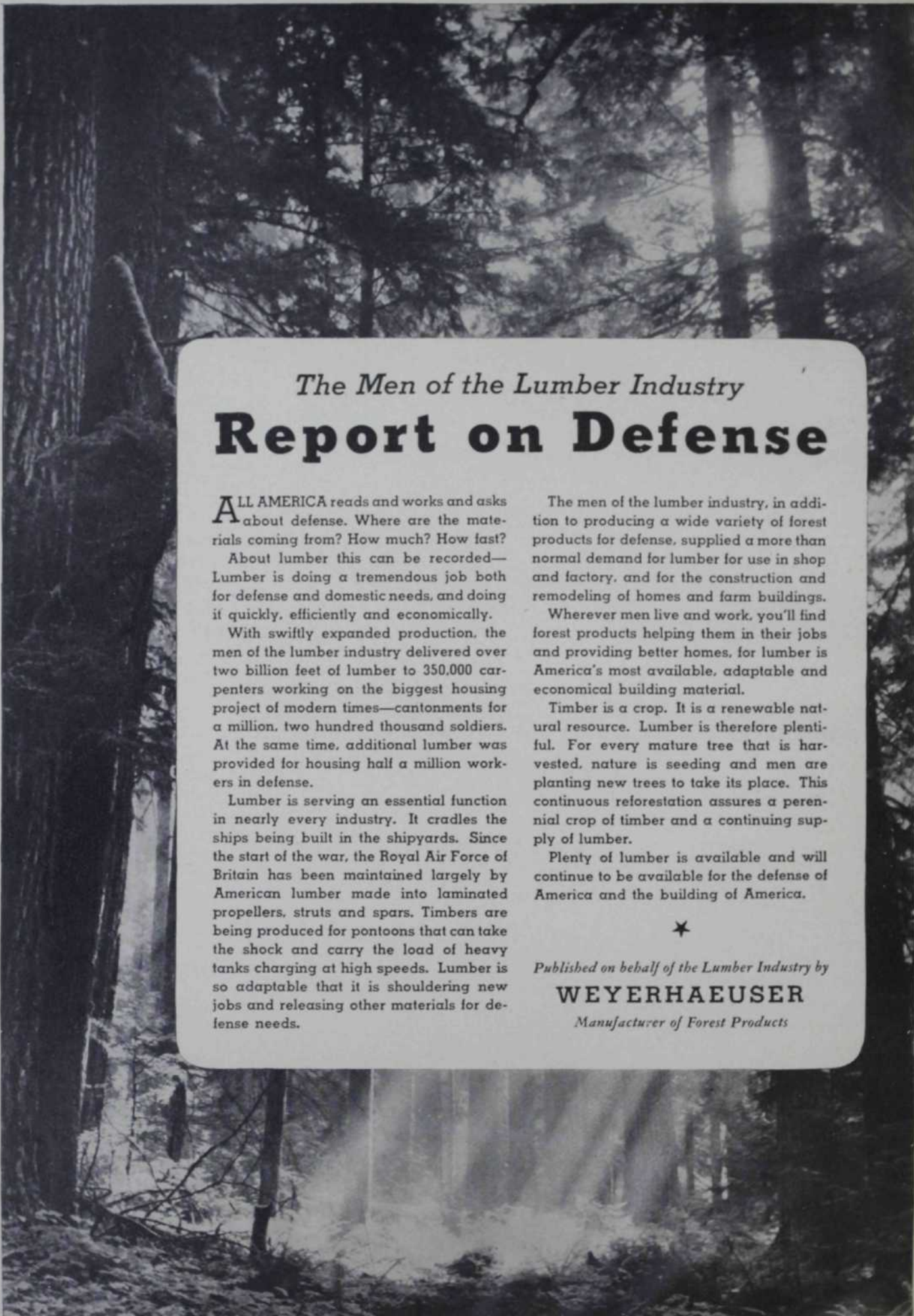


THE AETNA FIRE GROUP

HARTFORD, CONNECTICUT

New York, Chicago,
San Francisco, Charlotte, N. C., Toronto, Can.





The Men of the Lumber Industry **Report on Defense**

ALL AMERICA reads and works and asks about defense. Where are the materials coming from? How much? How fast?

About lumber this can be recorded—Lumber is doing a tremendous job both for defense and domestic needs, and doing it quickly, efficiently and economically.

With swiftly expanded production, the men of the lumber industry delivered over two billion feet of lumber to 350,000 carpenters working on the biggest housing project of modern times—cantonments for a million, two hundred thousand soldiers. At the same time, additional lumber was provided for housing half a million workers in defense.

Lumber is serving an essential function in nearly every industry. It cradles the ships being built in the shipyards. Since the start of the war, the Royal Air Force of Britain has been maintained largely by American lumber made into laminated propellers, struts and spars. Timbers are being produced for pontoons that can take the shock and carry the load of heavy tanks charging at high speeds. Lumber is so adaptable that it is shouldering new jobs and releasing other materials for defense needs.

The men of the lumber industry, in addition to producing a wide variety of forest products for defense, supplied a more than normal demand for lumber for use in shop and factory, and for the construction and remodeling of homes and farm buildings.

Wherever men live and work, you'll find forest products helping them in their jobs and providing better homes, for lumber is America's most available, adaptable and economical building material.

Timber is a crop. It is a renewable natural resource. Lumber is therefore plentiful. For every mature tree that is harvested, nature is seeding and men are planting new trees to take its place. This continuous reforestation assures a perennial crop of timber and a continuing supply of lumber.

Plenty of lumber is available and will continue to be available for the defense of America and the building of America.



Published on behalf of the Lumber Industry by

WEYERHAEUSER

Manufacturer of Forest Products

August ★ CONTENTS ★ 1941

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How can I make sure of getting
FLUORESCENT LIGHTING
at its Best?

DO THESE **4**
SIMPLE THINGS

Things Happen

WHEN YOU GET PROPERLY INSTALLED

G-E Fluorescent Lighting

Right away people see better, feel better, work better. Customers buy faster and buy more. Production speeds up, spoilage and accidents decrease...

When you have G-E fluorescent lighting engineered to your specific needs! That's why you'll find the most enthusiastic boosters of fluorescent lighting among the men who have had the foresight to take these four important steps before they selected any fluorescent lighting equipment... because they have fluorescent lighting at its best.

Why not find out how you can "roll back the roof" in your store, office or factory? How you can enjoy cooler, smoother light? How you can have much more light for easier, faster seeing... with G-E MAZDA F lamps, the kind *made to stay brighter longer*. Just take these 4 easy suggestions at the right.

New low prices on G-E MAZDA F lamps

(effective Aug. 1, 1941)

14-watt T-12	was \$1.05	NOW 90¢
15-watt T-12	was 1.10	NOW 95¢
15-watt T-8	was 85¢	NOW 75¢
20-watt T-12	was 1.10	NOW 95¢
30-watt T-8	was 1.10	NOW 95¢
40-watt T-12	was 1.60	NOW \$1.35
100-watt T-17	was 3.50	NOW 3.00

Above prices cover daylight and 3500° white. Prices also reduced on soft white and colored G-E MAZDA F lamps. See your G-E supplier.

G-E MAZDA LAMPS
GENERAL ELECTRIC

Get sound advice... How much light does your business need? How should it be installed for maximum results? These questions and many others can be answered by your G-E MAZDA lamp distributor or local electric service company.



Ask for CERTIFIED fixtures... such as those bearing the Fleur-O-Lier label, at right or the RLM label, and get fixtures and auxiliaries (ballasts and starters) that meet rigid specifications for good light, balanced performance... certified by famous Electrical Testing Laboratories.



Get the benefit of wide choice of over 100 fixtures to suit your needs and your taste. General Electric does not make them; cooperates with leading fixture manufacturers to assure fluorescent lighting units fitted to your specific needs. Ask your lighting advisor.



Get the RIGHT lamp... When you specify G-E MAZDA F lamps, you get all the economies and efficiencies developed by famous MAZDA research. You get General Electric precision manufacturing. You get lamps designed to fit your needs... lamps made to stay brighter longer.





Every year a new crop of youngsters come up from the sandlots and camps for tryouts in the big leagues . . . hopeful of making the grade . . . dreaming of having "plenty on the ball" to face the really big-shot sluggers. Behind them are years of study, gruelling practice in the training camps, and experience in the "minors". But it's a small price to pay for an iron arm that can deliver the ball right down the "groove" . . . with plenty of steam!

On the railroad, delivery is equally important! Merchandise shipments must be delivered on time, straight down the groove, with precision and dependability acquired, through years of training and experience—training and experience, coordinated with adequate, efficient motive power, rolling stock, terminals and other facilities. When it comes to "pennant winning" delivery, the Norfolk and Western Railway has "plenty on the ball"!

If your shipment is to be moved between the Midwest and the Virginias and Carolinas or between the North and the South, specify the route of the Norfolk and Western.

**NORFOLK and
WESTERN
Railway**
PRECISION TRANSPORTATION

COPY 1941 N. & W. Ry.

THROUGH THE Editor's Specs

Note on bellywhoppers

THE OFFICE visitor saw a proof of the Lambert photograph that decorates our cover.

"Ha!" he said, "the American taxpayer. Stripped bare and about to go in beyond his depth."

That wasn't what we had in mind, at all. We liked the picture because it aroused a pleasant nostalgia. We remember such a spot on Marais des Cygnes Creek, in Bates County, Missouri (or was it Walnut Creek, the stream that flowed into the Little Osage?). Sure, the water was muddy and frequently Farmer Gunther's cows beat us to it. But they were gentle cows. A few hardy youngsters tramped out there on hot summer afternoons. A la-de-da boy who had moved in from the big city of Rich Hill showed up *once* in a bathing suit and never dared come back. First principles were definitely the rule, in swimming and diving as well as costume.

We didn't have much form but who ever saw a good diver having fun! They're more interested in "layout," and "pike," and "tuck" and "half-gainers," than fun. This kid is having fun and he's getting results—the thrilling sensation of flight, the invigorating slap of the water on his behind, the cooling of his hot body in the caressing stream, the pleasant ooze of bottom mud between his cramped toes. Tie that with a studied jackknife into a sterilized white tile pool built by W.P.A.

Offhand, we'll bet that the world would get more actual benefit out of a couple of good bellywhoppers than out of a whole evening of nationally planned, mechanized forward, running, somersaults with full twist. But nobody would agree with us today—not even the fellows who took the bellywhoppers a generation ago.

Communist lyric

THE CHICAGO correspondent of the *Daily Worker* oiled up his typewriter and wrote an inspired dispatch about the deep undercurrent of sympathy by Corn Belt farmers for the hard-

pressed Soviet. It springs naturally from the heart and from the native love of liberty, he reports. Word has reached the Middle West farmer, after penetrating a wall of capitalist censorship, that the Soviet agriculturist "has won security, better living standards and cultural enlightenment"—in short, that Stalin has solved the farm problem which baffled Henry Wallace.

Discovery of this burning sympathy in the corn rows for a great brother democracy across the seas bespeaks an inventive mind in the *Daily Worker* journalist. An equally resourceful capitalist reporter in Moscow or Kharkov should be able to find pulsing in the bosoms of Bolshevik commissars a silent but fervent sympathy for all that "Wall Street" implies to the demagogue.

Realities vs. prejudices

APROPOS the recent talk about industry's discrimination against negroes, a reader writes from El Paso, Texas:

In one of our leading local laundries I saw the other day three photos hanging on the wall of the president's office. One was of "Bill" Fitch, a founder of the American Institute of Laundering, whose memory is respected by all launderers. Another was of a deceased co-founder of the firm. The third was of Hiram Hall, a colored engineer who, I was told, had worked for the firm for more than 25 years up to the time of his death. "We're rather particular about whose pictures we hang here," the owner said. "And, just because he happened to be colored, we don't feel any condescension in honoring a faithful old worker who stayed with us through good times and bad, and made his definite contribution to the success of the undertaking."

Exploiting with pay envelopes

AMONG all the volumes of foolishness that has been mouthed about capital and capitalists, this classic by Prof. Morris U. Schappes of the City College faculty in New York City, given during his testimony before the Rapp-Coudert Committee investigating radicals in education, deserves to be recorded for posterity:

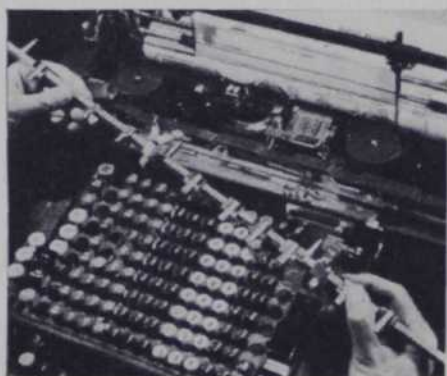
A capitalist is a person who exploits

"Yes, but what has it got
that I haven't got?"

—says the Little-Man-Who-Wants-to-Know



"Please, sir! This is a business machine—does more work than a bevy of perspiring pen-pushers! It's a NATIONAL Typewriting-Bookkeeping Machine. Saves time. Saves labor. Avoids errors. Suited to numerous uses, yet so simple a child can run it!



"For instance—you can switch it from accounts receivable to accounts payable to payroll work (or what-have-you) by changing the removable stop bar—in one minute flat! It's built to fit your book-keeping system, no need to change that. And full of ingenious efficiency features.



"See for yourself! This machine has front-feed insertion, two automatic daters, standard typewriter and adding machine keyboards, selective column printing, complete visibility, entirely automatic action. It's built to work full time and finish in jig time! We call it 'Mr. Magic'."



"There are other NATIONAL machines, tailor-made to each job—listing, posting, proving, analyzing, check-writing, remittance control and more. Machines that soon pay for themselves, all engineered by the makers of NATIONAL Cash Registers. . . . Be smart—see NATIONAL first!"



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other people by paying them to work for him.

By paying them to work for him, after also providing the tools with which they work, assembling the materials on which to work, and taking a chance of selling the product of that work for more than it cost to produce—that emendation is suggested just to keep the record straight. If the Professor thinks it is a soft spot, let him try swapping places with a boss and sitting in the exploiter's uneasy chair for a few days.

Economic literacy

A COUPLE of years ago we quoted a marketing authority in these columns to the effect that, as business gets better, women's dresses are progressively shortened, and *vice versa*. A reader, recalling the comment, writes that his observation leads him to believe we are on the way to the flamboyant prosperity of 1929. As for us it is all too confusing; skirts getting shorter, and shorts getting longer.

"The poll shows—"

A REGULAR research man of a food packing company, who saw his painstaking work supplanted by the lazy method of polls and questionnaires, had his little joke with the management last month. He sent a questionnaire to all the clerical help in his plant asking each person to indicate which of a list of magazines he read regularly. The list included monthly and weekly publications in the general and women's field, and also, *Public Opinion*, *Literary Digest*, *Delineator* and several others which have not been published for two years or more.

The joke was that the discontinued magazines stood up well with the *Saturday Evening Post*, *Time* and others.

It is too early to state whether the management caught the point of the joke.

Furnishing the background

THE BIG names in the political news aren't always the key figures. They are the administrators. The policy makers are often in the background.

Thanks to an enterprising news prospector, one of these top policy makers lately found his name on the front page in uncomfortably large type. "Eugene Casey Called Power who beat F.S.A. Civil Service," said the *Baltimore Sun*. The story told how one of the President's "selfless six" of special executive assistants went on a chore up to the Capitol and brought home a nice hunk of political bacon. By deftly pulling the proper wires, Casey obtained passage of a last-min-

ute amendment to the deficiency appropriation bill blocking inclusion of 18,000 Farm Security employees in Civil Service.

The reason alleged is that many of these employees are said not to be in accord with the extreme New Deal social philosophy.

The news item was more understandable to NATION'S BUSINESS subscribers who had read the full-length study of Mr. Casey in an earlier number.

Sauce for the gander

IN A RECENT "confidential memorandum for administrative use only" the Department of Agriculture, through John Fischer, chief of the F. S. A. division of information, turned from prosaic farm facts to the more alluring pasture of world power politics. These paragraphs are from that memo aimed at reaching indirectly those "complacent" anti-war farmers in the Middle West:

Many of the best informed people in Washington predict an invasion of the Western Hemisphere within 90 to 120 days if Britain is defeated. . . .

The Department feels that the American people—particularly the farmers—do not understand these facts, and that vigorous action of the type needed cannot be undertaken until this lack of understanding is remedied. For this reason, every agency in the Department has been asked to do all it can to get these facts before the people. . . . Indiscriminate broadcasting might play into the hands of appeasement propaganda groups. We are requested to carry these facts by word of mouth to our own officials and other key people in agriculture.

Yes, indeed, Mr. Fischer, you can't be too diligent fighting these "propaganda groups" with propaganda.

Little Washingtons

MORE TALK of decentralization of federal administration is heard. A rumor goes around that one or more bureaus will be transferred bodily to Chicago because Washington just isn't big enough to hold Uncle Sam's family.

But there's nothing new about this form of decentralization. The federal establishment has been spreading itself across the continent for ten years. Only 172,000 of its 1,251,000 or more employees are in the capital. Texas, for example, has 333 federal offices in 78 cities. This represents the regular administrative agencies alone and does not include postoffices. There are 185 federal offices in New York, 191 in Chicago and 109 in San Francisco. No longer than six years ago New York had only 69, Chicago 66 and San Francisco 73.

While he was still Secretary of Agriculture, Vice President Wallace could point with pride to the fact that

STAMPEDE!

...how would you stop it?



No one knows in how many power-plants the might of "thousands of horses" is being held in leash with apparent security today—yet with a steadily weakening link somewhere which *could* be the forerunner of a disastrous stampede tomorrow.

Your own power-equipment can develop hidden symptoms of unrest which sooner or later may set its power running wild. How can you know that in engine or turbine some obscure fault isn't growing toward a plant-wrecking catastrophe? Or that a boiler seam isn't about ready to let go? Or that weakened insulation isn't inviting breakdown of an electric generator?



Just as the best way to deal with animal horsepower is through men who know horses,

so the best way to keep mechanical horsepower within bounds is through a concern which knows power equipment. Hartford Steam Boiler has devoted itself to that study—exclusively—for 75 years.

Its entire organization—including a competent directing staff of specializing engineers and a nation-covering safety patrol of more than 400 alert, highly trained field inspectors—is dedicated to the sole task of guarding and insuring—

**Boilers • Steam, Gas and Diesel Engines
Turbines • Pressure Vessels • Electrical
and Refrigerating Equipment.**

Your agent or broker can tell you what this Company's facilities can mean to *you*—particularly during these critical times when *defense production must not fail*.

**THE HARTFORD STEAM BOILER INSPECTION
AND INSURANCE COMPANY • Hartford, Connecticut**

POWER-PLANT INSURANCE BY POWER ENGINEERS

Here come life lines of national defense



Additional telephone lines speed defense everywhere.



Army camps must have plenty of telephone lines.



On ship and shore the Navy relies on telephone lines.



Industry requires, and obtains, more telephone lines.

Telephone lines are life lines. They carry the communications so vital to our expanding defense program.

The photograph shows wires being made into a telephone cable. Such cable—containing billions of feet of this wire—is being rushed by Western Electric to meet the urgent telephone needs of the armed forces and of industry.

So too, in vastly increased quantities, are being sped telephones and switchboards—and radio apparatus for the air forces and the Signal Corps.

The efficiency of Bell Telephone service is more than ever essential to government and business, and now as always Western Electric can be counted on to supply the life lines.

Western Electric

... is back of your Bell Telephone service

his department had an organization in every agricultural county in the nation. That's geographic decentralization but political centralization.

Selling in "dog days"

THERE ARE "summer patriots" and "winter salesmen." About this time of year the winter salesmen are saying that there isn't much use to call on customers and prospects in August because "most of 'em are away on vacations, anyway, so we might as well mark time and get ready for a flying start in September."

Here's a quick comeback for these boys. The Eastman Research Organization of New York has compiled a record of "outs" and "contacts" by its field force engaged in interviewing. The tabulation is by months for the years 1939 and 1940. It does show that the best time to obtain interviews is in the winter, but the difference is comparatively small. The highest number of "contacts" was 55 for December and the same for January, and the lowest 45 for July. August registered 47, only eight points under the maximum. The average for the three summer months was only four points under that for the three winter months.

Oceans of literature

WHAT IS the largest publishing house in the country?

Yes, the question is rhetorical. The answer, of course, is the Government Printing Office in Washington. Sales of books and pamphlets last year totaled more than 13,000,000, and this is only a fraction of those distributed free. An index to the monthly catalogs for 1940 runs to 228 pages of six-point type. Subjects range from "Ethlyn, Mo., railroad accident" to "Apostle Islands" to "Yahooskin Indians."

Not long ago when one bureau overhauled its Information Division it was found that 252 periodicals were being published regularly under its imprint.

Many of them were duplicating or overlapping in their subject matter. In every such case, some official had at one time been assigned to "get out a bulletin" and had simply continued producing it indefinitely, whether or not a continuing need had been demonstrated.

The flight from jobs

FROM all over the country come reports of an unprecedented shortage of farm labor. Men cannot be hired to work in the fields because W.P.A. and Army construction jobs are more attractive. Farmers are forced to get along, even in the harvest season, by

"swapping" work with their neighbors.

A laundry trade paper reports a serious shortage of workers affecting the laundries in many sections. Restaurants and other service trades in some communities are similarly handicapped.

But when it is proposed in a Senate amendment to make the relief appropriation for the coming fiscal year \$1,250,000,000 (\$1,350,000,000 was spent last year) Senator Hughes of Delaware supports the larger sum in this declamation:

Those who are not now employed will not secure employment elsewhere. Those who are taken off the (W.P.A.) rolls for lack of funds will secure no employment anywhere else.

The Senator may be right in saying that they *will* not; it is certainly not true that they *can* not.

Whose funeral?

CAN the leopard change his spots by screaming for "democracy" when he is in trouble? In "Stalin's Kampf," we read these words from the creed of that sardonic prophet in the Kremlin:

I think the moment is not far off when a revolutionary crisis will develop in America. And when a revolutionary crisis develops in America, that will be the end of world capitalism as a whole. It is essential that the American Communist Party should be capable of meeting that historical moment fully prepared and of assuming the leadership of the impending class struggle in America. Every effort and every means must be employed in preparing for that, comrades. For that end, the American Communist Party must be improved and Bolshevized.

Short cut to socialism

A BRITISH laborite member of Parliament who was recently on a "good will" tour of this country said the war cost is so terrific that when it is over all Britons will have to "start from scratch."

No doubt the M.P. was being realistic. Another English visitor, the feminist leader, Miss Beatrice Gordon Holmes, tells Americans that the new confiscatory income tax scale is "the fastest method of converting a country to socialism ever known." And, when a national debt reaches the point where the politicians consider that its repudiation will cause less popular electoral revolt than the collection of taxes to pay it, they repudiate.

If we could turn back the hand of time to our twenty-first year most of us would be willing to start again, "from scratch."

Denied that magic volition, those past 40 who have acquired a home, a business, a savings bank account or a few securities, but who retain less than half of the energy they started

**"rush
this
office
memo"**



**"D. L. W.— Better look into
these new \$49.50 Victor
portables"**



"Where you need
it . . . when you
need it"



Profit-guardian
for alert mer-
chants



For quicker serv-
ice and accurate
records

THE call is for more Victors—America's finest portable adding machines and speediest aid to stepped-up office and production figure problems.

Victor portables serve all business . . . big corporations, utilities, doctors, lawyers, corner groceries and drugstores . . . rolling out totals with a speed and quiet that matches their streamlined design.

Whatever your figure requirements may be, choose Victor. "Straight" portable adds in three capacities, with 10-key or full keyboard, \$49.50 and up; with *direct subtraction*, \$79.50; standard electric models, starting at \$134.50.

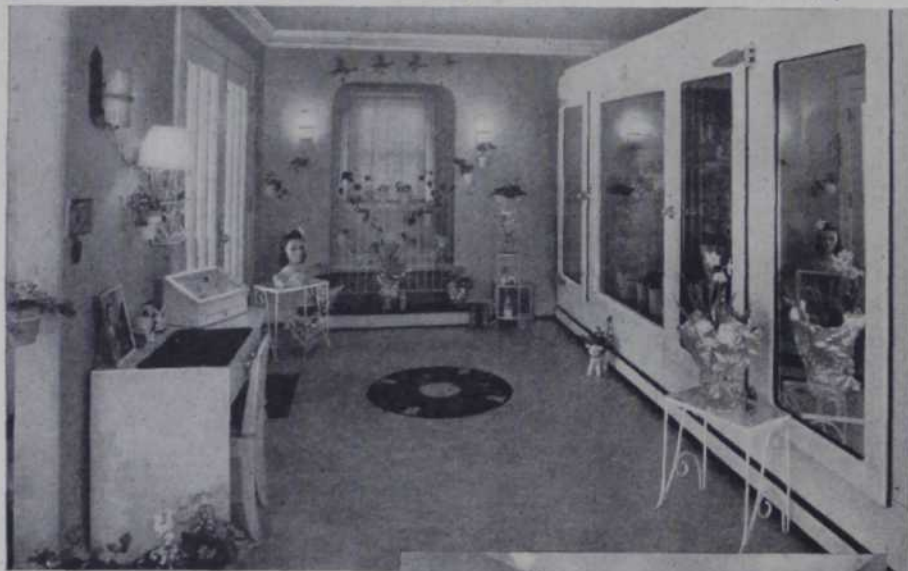
Telephone your Victor representative today for a demonstration. Or write Victor Adding Machine Co., Dept. N-8, 3900 No. Rockwell St., Chicago.



Victor's newest
portable adds
and subtracts.
Only **\$79.50**

VICTOR
ADDING MACHINES

Now
flower shops
*say it with
floors!*



"ALMOST AS MANY MENTIONS as our flowers." That's what Mr. Milan Novak says of his Armstrong floor, shown above, in the Novak Flower Shop, Bloomington, Ill. A smart Armstrong floor will start people talking about your store, and start them buying more merchandise.

"SALES UP 25% since we installed our floor of Armstrong's Linoleum," writes Charles P. Mueller of Wichita, owner of this attractive floral shop. Here's another case where it paid to invest in business-boosting Armstrong floors.



EVERYBODY'S doing it. Florists, butchers, bakers, grocers, bankers—right down the line. They're dressing up for better business with smart, trim-looking floors of Armstrong's Linoleum . . . floors that tell the public to "come in and buy."

So why not join the parade of successful merchants and businessmen and say it with Armstrong Floors in your shop, store, or showroom? Say it with stylish, colorful floors that invite trade. Say it with floors

that are comfortable, quiet, warm—floors that cut cleaning costs and never require expensive refinishing.

Ask your local linoleum merchant to show you how little it costs to dress up your place of business the Armstrong way. And write today for our color-illustrated book. Sent free (outside U.S.A. 40¢). Armstrong Cork Company, Floor Division, 4108 Coral Street, Lancaster, Pa. (Makers of cork products since 1860)

ARMSTRONG'S LINOLEUM FLOORS

Custom-Laid or  Standard Designs

PLAIN • INLAID • EMBOSSED • JASPÉ • CORK TILE • ASPHALT TILE
RUBBER TILE • ARMSTRONG'S LINOWALL and ARMSTRONG'S QUAKER RUGS

with at 21, may be excused for feeling that such a new deal would be arrived at by dealing their cards from the bottom of the deck.

"Acknowledging yours—"

SELDOM, if ever, has NATION'S BUSINESS presented an article which has brought such widespread commendation as "Your Business and the Unlimited Emergency," printed in the July number. Typical of the comment is that of W. C. D'Arcy of St. Louis:

I have just finished reading the article by Leo M. Cherne. . . . It is of clear and easy determined value. If a business man would read this assiduously, think about it for several days in order to assimilate thoroughly the whole structure of the American economic picture as it relates to the support of all defense, I am quite sure that he would be better satisfied with the bits of news he gets every day concerning some integral part of the whole. He could quit guessing and study more and understand more—and in that way he would become better for himself as well as better for the community or his business.

Good news for debtors

IN ONE of its press releases, the Federal Housing Administration hails as a welcome trend and "recognition of the soundness of F.H.A. standards," the consistent decline being shown in the size of original down payments on F.H.A.-financed homes by builders and purchasers.

"Typically," says the lending agency, "under the F.H.A. plan, the 1940 new-home buyer mortgaged his home for 87 per cent of its valuation, compared with 76.1 per cent for 1935."

Under the new formula that's supposed to represent progress. It amounts to saying, or reiterating, that increased private debt is a progressive sign. So well has that black-is-white theory become grounded that the author of this pronouncement didn't even consider it necessary to justify his paradox.

Academic plumbers

BUSINESS executives long ago learned that, before a sales manual is compiled, it is wise to collaborate with the salesmen who are to use it, to be certain that its procedures are all practical.

Government, it seems, has not yet progressed that far.

We are thinking of the Plumbing Manual published recently by the U. S. Department of Commerce. This is an elaborate brochure prepared under the direction of a distinguished group of "experts," all federal officials. No advice or collaboration was asked of the plumbing industry.

Plumbing and Heating Business, journal of the National Association

of Master Plumbers, says the manual is not a practical document, that it contains so many errors a general revision would be necessary to make it of any use. Accepted terminology of the industry was discarded by the authors and replaced by a confused reshuffling of terms, says this trade journal. Furthermore, it asserts that many of the recommended standards are theories that will not function in practice. Instances of recommended plumbing installations that are generally recognized in the trade as bad practices are cited.

When will professors and office-holders recognize that a business is a specialty not to be mastered by reading a book or two?

Drumbeats from the war

"ENGLAND has no eternal enmities and no eternal friendships. She has only eternal interests."—Lord Palmerston, British Prime Minister in the 1860's.

IT MAY COST the United States \$100,000,000,000 in money alone to defeat Germany, according to Joseph L. Trecker of the U. S. Defense Contracts Service.

AT LEAST \$250,000,000 of the \$800,000,000 appropriated by Congress to build seven army camps has been wasted, Representative Engel of Michigan reported to the House of Representatives after a personal tour of investigation to the camps under construction.

BELLES of Mobile, Ala., have organized three battalions of "Dancers for Democracy" to entertain soldiers in nearby camps.

"THE FREEING of Earl Browder will help unite all American labor and strengthen a vast united struggle to crush Hitlerism. The American people respect Earl Browder."—From a new manifesto issued by the National Committee of the Communist Party.

"THE SOVIET Union extends ardent greetings to the American people on the occasion of their glorious national holiday."—Moscow radio announcement prefacing a one-hour program dedicated to American Independence Day (formerly designated by Lenin et al. the despised "bourgeois revolution" anniversary).

AN HONORARY seat in the House of Commons is proposed for President Roosevelt by a prominent London Rotarian.

"THE BRITISH Empire must petition Congress immediately for admission as a state or a group of states into the Union."—Rubin Gotesky in *Living Age*.



ONE DAY he's delivering (*before* contract date) the 300th basic training plane. Next day he's probing the secrets of a Messerschmitt 110 captured by the British. He's Chairman of the Vultee Aircraft Board, President of Aviation Manufacturing Corp., an executive officer of Stinson Aircraft, Lycoming Engines, Spencer Heater and Auburn Central Manufacturing.

Associates call Harry Woodhead "the busiest man in America." Huge defense orders for pursuit ships, combat planes, attack-bombers and trainers pour in—because his men "get 'em into the blue"—fast!

Factory space, employment and production have shot up almost unbelievably—and each adds re-

sponsibilities, extra details. Mr. Woodhead, who takes it all in his stride, says, "my greatest time saver is my Ediphone. It enables me to increase my own efficiency, lets me dictate correspondence, notes and data any time, night or day. What's more, my secretary would probably refuse to work without it."

We think there's an idea here for any business man or his secretary. Why don't *you* write or phone for a free demonstration—see how much more *you* can accomplish with Ediphone Voice Writing? Phone The Ediphone (your city) or write Dept. N8, Thomas A. Edison, Inc., West Orange, N. J. (or) Thomas A. Edison of Canada, Ltd., 610 Bay St., Toronto.

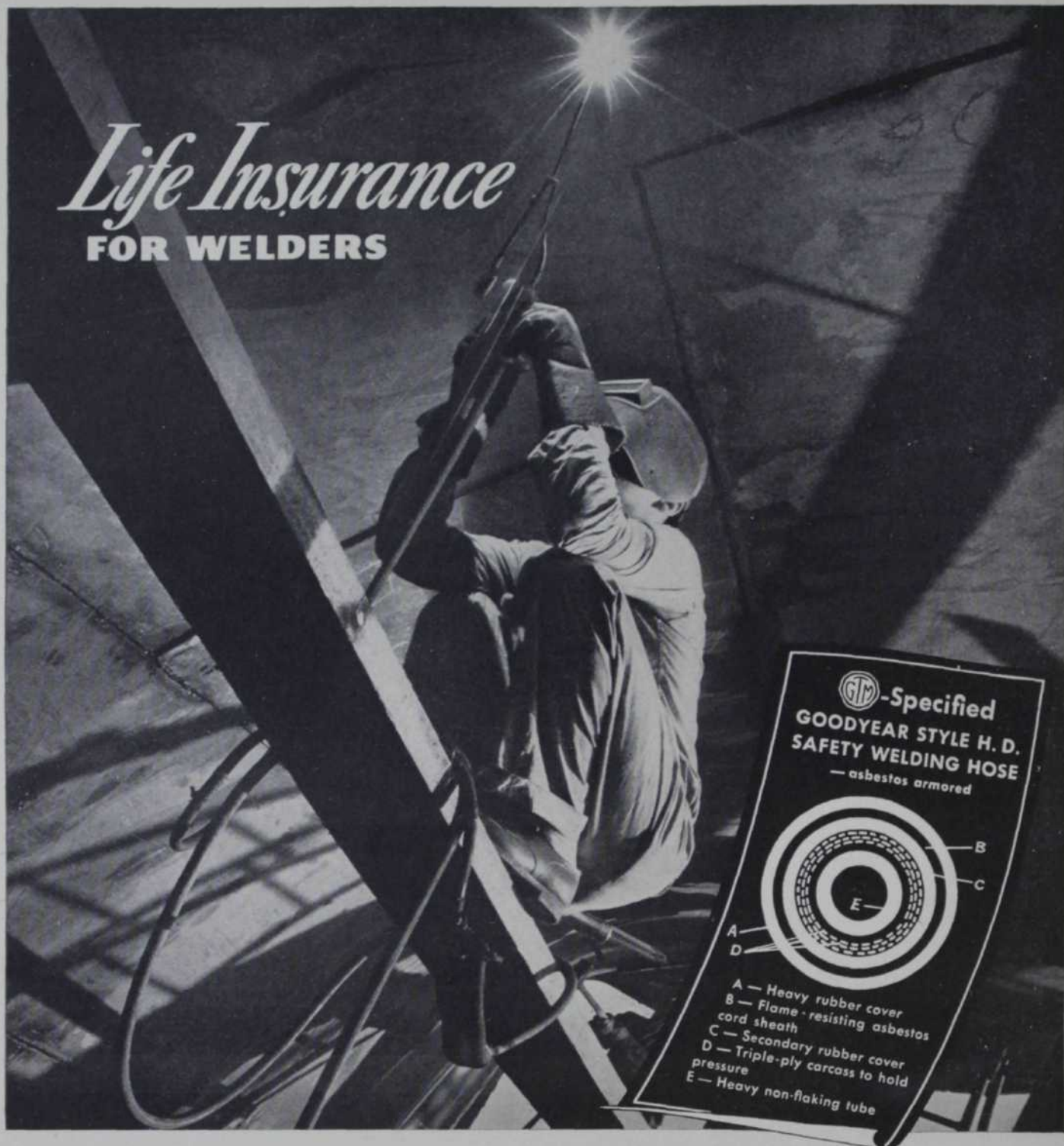
EDISON
VOICEWRITER
Ediphone



Vultee "Vanguard" Pursuit (P-48)—cruising at 5 miles a minute! Details of this and the newer, even deadlier Vultee "Vengeance" (now being delivered) are necessarily censored.

Life Insurance

FOR WELDERS



WELDING in close quarters has long been one of the more dangerous jobs in industry. Should the incandescent metal-fusing flame accidentally hit the gas-feeding rubber hose lines, they burn through instantly — *and wham!* Explosions have put many a welder on the casualty list. But fortunately, this peril has now been practically eliminated by the G.T.M. — *Goodyear Technical Man*. Seeking a way to protect welding hose against flame while keeping the flexibility required for work in narrow confines, Goodyear technicians hit upon asbestos. A special, heavy asbestos cord was developed that could be woven into hose plies like ordinary cotton cord, and Goodyear Style H.D. Safety Welding Hose was born. Its asbestos armor prevents burning through from

accidental contact with the torch or gobs of molten metal. It saves welders' lives — *because it has a ten times higher safety factor than conventional hose!* Goodyear now builds many types of asbestos-bodied hose for operations where intense heat must be endured. To consult the G.T.M. about them, write Goodyear, Akron, Ohio or Los Angeles, California — or phone the nearest Goodyear Mechanical Rubber Goods Distributor.

THE GREATEST NAME IN RUBBER
GOODYEAR

The Right Underlying All Rights

WORK, as we are learning at an oppressive cost of tuition, is the only assurance of national security. The situation we are facing as a people with a common interest in keeping the United States a going concern provides its own occasion for defining the position of the National Chamber in respect to matters of public policy.

It is supremely important now to focus attention on the fact that, although virtually everyone in business recognizes the right of anyone to cease work or to strike, there is a right under our form of government which is, and must continue to be, more fundamental than the right to strike. It is the right to work. This is man's God-given right.

Unless men and women who want to work and earn a living for themselves and their families can do so under peaceable conditions and without molestation, little of our boasted individual freedom is left. Anything that interferes with the right to work is thoroughly un-American. Our Government must assure its citizens not only peaceable working conditions, but safety to and from their homes, and peace and protection in their homes.

Our national defense preparation concerns the safety and protection of everyone in the United States and must not be interrupted or delayed by any individual or interest for any reason within the control of the people.

If this program is interrupted, and local and state authorities cannot preserve peace and cannot maintain conditions which permit those who want to work to do so—then it becomes the first duty of the federal Government to protect them in this right. The Government should take whatever steps are necessary to insure the continuance

of defense production by those who are willing to carry it on.

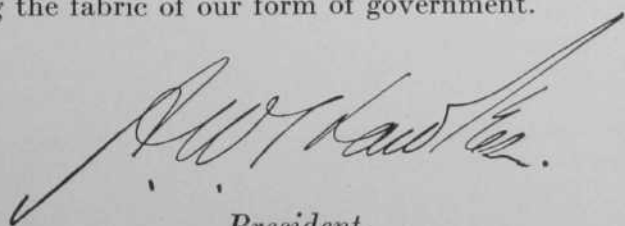
The Government should not, even in a state of declared emergency, take over the control of private property required for national defense until it has exerted every other effort within its power to establish and maintain peace in, and production by, national defense plants. The sole justification for occupation of private property is to insure maximum defense production which inherently requires protection of the citizens' right to work. If the Government is forced to operate a plant, it should do so in accord with the rules and principles of equity for all parties. Further, it should assure the owners that the property will be restored just as soon as peaceable working conditions are again established in plant or locality.

This is the head and front of the matter:

There are three vital rights of our citizens which must have the full protection of government:

1. *The right to work in any lawful occupation.*
2. *The right to refuse to work.*
3. *The right to the fruit of such labor—security in the ownership of property.*

The first duty of government is to preserve these rights through the maintenance of law and order, for they are all so closely interwoven that no one of them can be nullified without destroying the fabric of our form of government.



President,
Chamber of Commerce of the United States

STEPPING UP TO A "MUST" ASSIGNMENT



Railroads are now moving more tons of freight more miles than they did in the peak war-year of 1918

One year ago the American railroads looked at the transportation needs of the nation's defense program and said they could handle the job.

On that promise we made good.

It was made with confidence, because preparedness started *twenty years before*.

Eight billion dollars had gone into heavier rails, stronger bridges, improved safety signals, more powerful locomotives, better cars — the basic needs of faster, smoother handling of increased traffic, whenever it might come.

Since that promise, things have happened.

The government's own appraisal of defense needs doubled and redoubled again.

Consumer buying reached a ten-year peak.

Demands for coal, piled up by the strike, pyramided the job in this field.

The demand for ships brought a shift of traffic from water to rails.

Today the railroads are handling an increasing portion of the intercoast traffic formerly moved through the Panama Canal.

The railroads are ready to take over shipments from the Orient — loading them on the Pacific Coast and speeding them across the continent at a saving of precious weeks.

The railroads are being called upon to take over the movement of much of the oil for-

merly handled by oil company ocean tankers.

And under way now is one of the largest wheat harvests in history — with the railroads standing by with a supply of cars ample to move more wheat than can be stored.

Certainly, no other form of transportation could begin to handle this combination of assignments — or move the tonnage that's rolling over the rails today.

To meet increasing responsibility, the railroads are adding new equipment.

They are rebuilding old cars, adding new ones. Between the fall of 1939 and of 1941, they will have put in service 1,000 locomotives, 27,000 rebuilt cars, 168,000 new ones. The schedule calls for 120,000 more in 1942 — 150,000 more in 1943.

Not content with this, we continue to ask ourselves, *what more can we do right now?* And in answer to this we have increased the activities of our Car Service Division, our Freight Container Bureau and our whole cooperative service to shippers.

What such cooperation can do to in-

crease the carrying capacity of America's No. 1 transportation system is shown by such examples as these:

It would add the equivalent of 100,000 cars to the nation's supply if the average "turn-around" time of each car could be reduced one day by faster unloading — 3 times the number of cars needed to handle any transfer of traffic from the Panama Canal.

It would add the equivalent of an additional 30,000 cars if the average loading of carload traffic could be increased by one ton

— by such simple improvements as better planning of packaging and loading.

How such improvements can be accomplished calls for analysis of each shipper's present methods — as well as the practices on the receiving end.

The big fact is, we are thinking ahead — studying our job for the sake of defense — and we invite every user of rail transportation to do the same.

It's a big assignment we have ahead of us. We

know it — and do not propose to underestimate the challenge it presents.

But we have the organization. We have the "know how." We have the man power. And we have the determination to do this job as it should be done.

EXPERT OPINION

"The National Association of Shippers' Advisory Boards has full confidence in the ability of the railroads of the United States to perform, under private management, with the cooperation of the shipping public and the government of the United States, the transportation services to be required of them by the National Defense program.

"It pledges its members and the members of its affiliated regional boards to the accomplishment of the nation's great purpose." — (Extract from resolution of the National Association of Shippers' Advisory Boards adopted at Chicago, Illinois, on June 19, 1941.)

ASSOCIATION OF AMERICAN RAILROADS WASHINGTON, D. C.

Should Bureaucracy Rule Petroleum?

By THOMAS T. READ

NEWSPAPERS recently carried headlines saying something like "Roosevelt Names Ickes Oil Coordinator." This is in addition to the control which the O.P.M. exercises over all industry and which is already far-reaching.

The public will undoubtedly accept all this as having become necessary in our present world situation but thought needs to be given to the long future of our American way of life, as well as its immediate problems.

Does this emergency control of all industry have in it sinister possibilities of new relations between government and industry?

There is ground for thinking that it does, and it may be well to consider some of the reasons for selecting petroleum as the first of our industries to be put under such control.

In considering the necessity for government control of the petroleum industry let us start with gasoline, on which nearly everybody depends and which we are able to get almost anywhere, any time we happen to need it. People do not seem to find it marvellous that this should be true. They marvel still less at the fact that gasoline is one of the cheapest of commodities. It ordinarily sells at the refinery for about one cent a pound; you can get it for three cents a pound, delivered into your car tank, at almost any corner.

One of the three cents usually represents taxes. If it were possible to dissect out the tax cost in the production and refining processes all the way back to the original search for deposits of crude petroleum we would probably find that the motorist is paying 1.5 cents a pound for the substance itself and an equal amount for taxes.

One of the outstanding features of this oil industry is the large amount of capital it employs. In the crude production, transportation and refining sections of the chain of operations which leads from the oil-bearing strata to the automobile tank, invested capital totals \$40,000 or \$50,000 per worker employed. This investment produces results.



Thomas Thornton Read's experience and training in the field of minerals have been of service to the Government, industry and education. Graduating from Columbia in 1902 as a mining engineer, he took his Ph. D. there four years later, since 1929 has been Vinton Professor of mining engineering.

Previously he had held professorships in universities in Wyoming, Colorado and Tientsin, China. Deserting education for industry, he became metallurgical engineer for the N.J. Zinc Company until World War days when he served as metallurgist for Army Ordnance. With peace, he moved to the Bureau of Mines.

Writer as well as technician, he has written several books on minerals, contributed to scientific and technical journals and for six years was editor of *Mining and Metallurgy*.

Pipe-lines grow rapidly

The cost of transportation of crude petroleum in a pipe-line is little more than a third of that by railroad.

Between 1918 and 1940 the petroleum pipe-lines in use doubled in length, rising to 126,400 miles last year, or about half the total railway mileage of the United States. Pipe-lines increased at a rate of more than 3,000 miles yearly, whereas so much more railroad track is abandoned than is built new that the total in 1939 was 18,000 miles less than in 1918.

Far beyond 1918

Even gasoline is today being transported by pipe-line, though to no great extent as yet. Parenthetically, it should be noted that these figures do not include those pipe-lines which transport natural gas. Three-quarters of the crude petroleum moves to the refinery by pipe-line. Tank steamers, which have multiplied in number eight times in the past quarter century, carry most of the rest. Even trucks are used to transport crude where local conditions favor them. Railroad tank cars, more than 150,000 in number—twice as many as in 1918—are mostly used to carry refined products.

1★ The fear of a shortage

Early prophecies of dearth set 1939 as the deadline. Where the error was made. New resources surpass production. How drilling technique improves. Theories pay dividends. Taxes again a *bête noire*. Toward complete recovery

BACK of these transportation facilities lie the oil wells, of which 21,761 were completed in the United States in 1940. The output of these, and the many others already completed, was a little less than 4,000,000 barrels of crude daily last year, or about four times the 1918 output, and 50 times that of 1901. The total number of operating wells is estimated at 390,000.

Lower stocks no hazard

In spite of this great increase, indeed partly because of it, the stock of crude oil awaiting refining is less than twice as large as in 1918 and so represents only half the ratio to annual requirements that it did in the earlier year. Since storage costs something, this is an economic improvement which involves no market hazard. Not only is production more widely distributed—coming from 23 states last year as compared to 17 in 1918—but wells are now generally under controlled flow, and it would be simple to increase production whenever the market demanded it.

Why estimates go up

The natural lay reaction to such impressive figures is to wonder how soon, if 4,000,000 barrels are removed daily, our petroleum will be all gone. That has troubled many minds for a long time. The United States Geological Survey estimated available reserves of crude petroleum in the United States at a little more than 7,500,000,000 barrels in 1916. Speaking before the Academy of Political and Social Sciences in Philadelphia in 1920, the Survey's chief geologist estimated that, at the then rate of production, reserves would be exhausted by 1939.

Actually about three times the estimated reserve had been taken out of the ground by 1941, and the latest estimate of reserves is still three times that made in 1916. New resources developed by exploration in 1940 are estimated at nearly double the amount taken

out of the ground that year. Since the production rate has increased four times, the ratio of reserves to production has slightly decreased.

It costs nothing to let the planners for the future worry, but it does cost a good deal to develop reserves far ahead of actual needs. Taxes are again a *bête noire* in that situation.

Why were the 1916 estimates of reserves so much less than has already been produced? For one reason, because drilling now proceeds to greater depths than was then economically or technically practicable. Though a well had been drilled to a depth of 10,000 feet in France by 1914 it produced neither oil nor gas. A well a little more than 7,500 feet deep near Fairmont, W. Va., was abandoned when the cable broke, leaving the drilling tools and 4,000 feet of cable in the hole.

But drilling techniques improved, and, by 1931, companies were finishing wells at around 10,000 feet in depth. Eleven thousand feet was passed in 1934; 12,000 in 1935, and, in 1938, a well 15,004 feet deep was completed in Kern County, Calif. Twenty-five wells deeper than 13,000 feet have been completed since 1938.

The deepest producing well, 13,266 feet, is in Louisiana. Equipment has been so improved that manufacturers are prepared to supply it for greater depths. Wherever there is likelihood that such deep wells will repay their cost, they can be drilled.

More important than ability to drill to greater depths is improved ability to recover all the oil in the strata tapped. The liquid in the porous rocks resembles champagne in that it has gas dissolved in it, only at much higher pressures. Besides providing the expansive force to drive the petroleum out of the pores into the well, this gas imparts a fluidity which helps recovery.

Careful theoretical study of fluid flow has paid big dividends in increased recoveries, and the general practice of controlling well production is even more important from the recovery standpoint than it is as a means of regulating output to demand. We are still far away from complete recovery of the petroleum in drilled strata, but good progress has been made and more may be expected.

2 ★ Getting more from less

Desired products are "tailor-made." Where motor knocks went. What "octane" means. Why planes fly further. Clearing a patent hurdle. T.N.T. for defense. How Nazis scrape up supplies. How "synthetics" could be cheapened

MOST interesting to the layman is what may be described as the tailor-making of desired products in the refining processes. Originally refining was a kind of crude sorting of the constituents originally existing in the crude, a mixture of light and heavy liquids in which both gases and solids are dissolved. The gases as they escaped carried with them vapors of the light liquids. Natural gas gasoline, the trade name for gasoline so recovered, has totaled about 2,000,000,000 gallons each year since 1929, or nearly ten times the 1918 production. It yields a light gasoline which was originally in great demand for aviation purposes.

"High octane gas" is almost as much talked about as the weather

Planners and taxes

Depth no obstacle

Champagne of minerals

Drake's first well was 69 feet deep. Modern drilling methods reach depths of 15,000

BROWN BROS.



What makes cars run

but much less generally understood. Octane is a definite chemical liquid compound which boils at 247 degrees Fahrenheit, and consequently is a rather light constituent of gasoline, which is required by specifications to boil away at 437 degrees F. A motor engine draws in the mixture of air and gasoline, prepared in the carburetor, on one stroke, compresses it on the next, and then the spark ignites it at exactly the right moment when the piston is ready to start back on the power stroke.

The next stroke, which forces out the products of combustion, unfortunately leaves behind some particles of hot carbon. As the development of improved motors made it possible to increase the degree of compression, it was found that these hot particles had a tendency to ignite the gas-air mixture before the piston had reached the position where it was ready to start back. So the motor "knocked."

Silencing hot carbon

Study of the problem revealed that there was less tendency to knock if the gasoline, which is a mixture of low-boiling and high-boiling constituents, had a higher proportion of the former. That was not a very practical solution because it was commercially necessary to use them all. Luckily it was soon found practical to reduce pre-ignition by using what might be called a de-catalyser—something which reduced the tendency of the hot particles to ignite the mixture.

Sea water and motor knocks

A number of things will do that, but the best and most generally used is lead tetraethyl. Fortunately only a small proportion is required, because the making of it requires the use of bromine. Only a limited supply of this was available before its recovery from sea-water was started. Even with that, bromine can never be very cheap because it is present in sea-water in such small proportions.

Somewhere in this work, octane came to be used as a standard of reference, and a gasoline with an octane number of 100 merely means one that is as good as pure octane in its ability to resist the tendency to pre-ignite.

With advanced study it has been found possible to make gasolines that are even better than octane in that respect and consequently have a higher number than 100. The octane number is not an expression of the percentage of octane present, which is far from 100 and conceivably might be zero. It is merely an index of freedom from a tendency to pre-ignite at high compressions.

Though beneficial in motor cars, high octane gasoline has its greatest importance in aviation, because 100 octane increases the power of airplane engines 20 to 30 per cent over even 87 octane, and 100 per cent over the octane ratios available only a few years ago. This is one of the main reasons why long distance flights have become practicable. The benefit is three-fold; more powerful engines are available, the ratio of engine weight to total weight is less, and the larger proportion of energy in the gasoline utilized as power simplifies motor-cooling problems.

Just a few years ago only a few gallons of 100 octane gasoline

Rotary drill bits for hard formations helped refute early predictions of coming shortages

ROBERT YARNALL RICHIE



were available at prices of dollars per gallon. Now the price at the refinery is about that of gasoline at a filling station and we have capacity to produce all our estimated needs for next year. Three processes are available for making high octane gas, and one of them utilizes what would otherwise be merely the waste gases of "cracking" plants.

This making of the most efficient gasoline is one example of tailormaking the product. Another, of perhaps more importance, is "cracking," which by 1925 was yielding a quarter of our annual gasoline requirements. Cracking consists of splitting high-boiling constituents, so heavy that they would not do to put even into kerosene, into other compounds. This is a godsend to the consumer because, unfortunately, many crudes have only a small proportion of gasoline as they come out of the ground. Thus our supply would be severely curtailed if we were not able to make gasoline out of what is not gasoline. It would be nice if it were practicable to split one heavy compound into two lighter ones, but in practice the tendency is to make heavier ones as well as lighter. The successful process is one which makes as much as possible of what you want and as little as possible of what you do not want.

Cracking originally was covered by a multitude of patents which were the source of much litigation but that aspect of the problem was cleared up when the companies agreed to cross-license each other. This produced a situation now satisfactory to everybody except the Department of Justice, which seems to suspect that there must be something crooked about anything in which a lot of big companies are involved. Cracking made it possible to use more gallons of gasoline last year than were originally present in the crude petroleum from which it was derived, and the end is not yet, because it is a commercial problem quite as much as a technical one.

Production in Seven-League Boots

Most refinery construction in 1939 represented replacements or new construction to employ such new developments as catalytic polymerization or alkylation. New plants would go up even faster except that technical progress is so rapid that some producers postpone reconstruction lest the new plant be superseded by a better type almost as soon as it is completed. A new continuous process, employing a fluid catalyst, as contrasted with the old batch processes using a solid catalyst was announced less than three months ago, and three large plants have already been started. It is predicted that this process will displace former methods because it involves less capital expenditure and makes it possible to produce a superior product at lower cost.

Petroleum refineries which were originally little more than distilleries have become delicately controlled chemical manufacturing plants which yield not only better products but more different kinds. One refinery has recently taken a contract to produce toluene, previously obtained in connection with coking coal. Ordinarily toluene is a drug on the market at about the price of gasoline, but the demand for it to make T.N.T. during the first World War sent the



ROBERT YARNALL RICHIE—REPUBLIC STEEL CORP.

Last year we used more gasoline than was in the crude petroleum from which it came

Coke was a war material

price sky high. Even then the amount that could be produced was limited by coke production.

Now its production from petroleum—exclusive of capital charges—will cost about the usual price. This first plant will add 50 per cent to previous production, and there is no limit to the amount that can be produced.

The petroleum industry is also set to produce an acceptable substitute for rubber at a reasonable price, when and if the natural supply gets cut off. Many other chemical substances ordinarily produced in other ways can be made from petroleum if it should become necessary or desirable to do so.

Speaking of coal brings us to the so-called hydrogenation processes. The keen interest in these derives from the fact that they enable us to make petroleum products from something which is not petroleum; probably in practice ordinary bituminous coal. It is being done in Germany, but, by the most optimistic estimates, the Nazi capacity to make gasoline in that way is not more than two per cent of our total refinery capacity. Moreover the cost is much higher, and the process yields no lubricating oil.

We do not have to do it here yet, and probably won't for a long while. If in time we come to it, we could do it without economic disturbance if that part of the motorist's dollar which now vanishes into taxes could instead be applied to the production processes of his gasoline. This would give an enormous leeway for alternative methods.

3 ★ Regulation without regimentation

The planners' excuse for seizure. Petroleum is like wild animals. When the Devil took the hindmost. What individual states have done. How producers save supplies. The Blue Eagle flew past. Confidence goes before a crack-down. Bills for federal control. Two pertinent questions

UNFORTUNATELY the heavy hand of the Government, instead of relaxing its pressure on the oil industry, bids fair to clamp down even harder. For years the bright-eyed planners have been trying to find some excuse that at least would sound valid for taking over control of the petroleum industry. Possibly the idea was put into their heads by the industry's efforts to regulate itself.

The need for regulation stems from the basic fact that crude petroleum is a fluid. Through a long legal tradition, ownership of subsurface substances rests on ownership of the surface. Since the petroleum beneath John Doe's land is not only free to move over under Richard Roe's surface but actually will do so if Richard Roe drills a well and John Doe does not, the only way John can cash in on his oil is to start drilling as soon as Richard does. When a new pool is discovered, it becomes a case of devil take the hindmost or at least it did before wiser counsels prevailed.

Now most of the petroleum-producing states have conservation commissions, or something of the sort, which have authority to regulate the rate at which oil may be withdrawn through wells. This, called proration, does not perfectly meet the troublesome legal situation, but does do a lot of good through forcing controlled flow.



Advance would be even faster if money taken by taxes were used for production

Dig or lose out

Controlling the flow

That conserves the gas pressure, and has a number of other incidental technical advantages.

The producers have an even better scheme, called unitization, which calls for the operation of a single pool as a unit, each owner to get a part of the total production proportionate to his ownership of its total surface. It is a grand idea, with two drawbacks: How can the boundary of a pool be accurately ascertained even by best present methods, and what can be done with the surface owner who refuses to join in unitization?

Enter the trust hunters

There is no easy road to technical and commercial control of oil production, though this idea has worked where only a few large companies are involved, and many still have high hopes for it.

One drawback of proration is the tendency of jurists to smell restraint of trade in any method of flow control. Thereby hangs a tale. The Interior Department of the federal Government has always been much interested in petroleum, because it exists under public lands which, since the law of 1920, can only be leased if they contain petroleum and in earlier years had to be disposed of as mineral, not agricultural, lands. During the days when one state was controlling production and an adjoining one was not, the authority of the federal Government was invoked to get the neighbors to join in the good work. It was not completely successful, since California and Illinois lawmakers still refuse to have any truck with production control (California has a system of voluntary cooperation that works pretty well), but it was active and helpful.

During the brief flight of the Blue Eagle, the operators got even more accustomed to dealing with the Government and actively cooperated with the Interior Department in procedures calculated to stabilize petroleum production after the Supreme Court slew the Blue Eagle in 1935.

Their confidence proved misplaced, because in 1937 the Department of Justice cracked down on them with anti-trust proceedings. It was current gossip around lunch tables at the time that the defendants wished to subpoena the Secretary of the Interior as their witness and have him testify that the actions complained of were exactly the actions he had urged them to take. The Secretary denies that this was the case.

However, as a result of the showing made, the district court dismissed some of the indictments, some of the defendants won new trials, and those convicted received only nominal fines.

The operators' troubles were not ended, however, because Congressman Cole, of Maryland, at the President's request, introduced a bill into Congress providing for federal control of the petroleum industry to be vested in the Interior Department. The producers naturally felt that, if cooperation with that Department had brought them so much trouble, being under its complete control would be even worse. The bill did not pass in 1940, although official pressure and propaganda techniques resembling those of Nazi Germany were used in its support.

The producers' plan

A big stick for the wasteful



ROBERT YARNALL RICHIE—NATIONAL LEAD CO

Continuous tests accompany drilling operations, test formations found underground

The "need" for control

Back in the days of the Blue Eagle there had been a National Resources Board, with the Secretary of the Interior as its chairman. In June, 1935, it was constituted as the National Resources Committee. Among its members were Secretary Perkins and Harry Hopkins. This group, having no experience with petroleum, set up a subsidiary science committee, though the members were mostly of the "social science" type.

However, the organization, now known as The National Resources Planning Board, recently made a report to the President urging that a federal oil commission with power to allocate production and refining of oil and its products be created in the interests of defense.

This report was submitted to Congress on March 17. The way for it had been paved by a letter which the President sent earlier to the House Interstate and Foreign Commerce Committee pointing out the "urgent need of federal legislation to safeguard petroleum supplies for the national defense."

In passing, it might be well to mention that nearly 30 federal agencies are already concerned with various phases of the petroleum industry and that, of these, only two—the Department of Justice and the Priorities Division of the O.P.M.—have announced their intention of cooperating with the Federal Oil Coordinator.

Among the agencies concerned with petroleum are:

Petroleum Conservation Division; U.S. Bureau of Mines; National Resources Planning Board; Federal Power Commission; Federal Trade Commission; Interstate Commerce Commission; Office of Production Management; Office of Price Administration and Civilian Supply; Export Control Administration; General Land Office; Bureau of Indian Affairs; Advisory Committee to the Council of National Defense; National Labor Relations Board; Wage-Hour Division of the Department of Labor; Bureau of Marine Inspection and Navigation; Public Roads Administration; Tariff Commission; Bureau of Foreign and Domestic Commerce; Census Bureau; Treasury Department, Procurement Division; War Department, Quartermaster General; Navy Department, Bureau of Supplies and Accounts; Committee for Reciprocity Information; Securities and Exchange Commission; Internal Revenue Bureau; Geological Survey; Department of Labor, Public Contracts Division.

The list omits those agencies whose activities concerning oil are casual or remote. Yet Secretary Ickes has said that some form of government control over petroleum production is still necessary.

This raises two pertinent questions: First, does defense actually create a need for additional control of petroleum? Second, if it is needed, should that control come from the federal Government?

Let's look at the record.

4 ★ What the record shows

Axis has only five per cent as much petroleum as we do. Exports balance military needs. Where new demand will come from. Turning valves would meet needs. Twenty years of Government control in Russia, 30 years in Argentina. Moving our supply. Gasoline and politics won't mix

THE FIRST fact to be considered is that the total petroleum supply available to the Axis powers is known to be about five per cent of

30 U. S. Agencies deal with oil

Axis powers must carry on war with petroleum supply only five per cent of ours



ours. From that they must not only operate their war machines but also meet, to whatever degree they do, the needs of the civilian populations, not only in their own countries but those they have overrun as well.

The second is that our military requirements of petroleum are just about balanced by the shrinkage in our exports as a result of war conditions.

The third is that the industry anticipates that any increase in demand will result from increased industrial activity, already present to large degree, rather than from the needs of the military establishment. It must be remembered that the requirements of the Army and Navy in peacetime are a considerable fraction of what they would be when actively engaged in war. The Bureau of Mines recently estimated that the demand for crude oil in May, 1941, would be two per cent larger than for May, 1940, and the demand for motor gasoline about ten per cent larger.

Quick answer to shortage

Balancing any increased demand is the shut-in situation of the producing wells. The mere turning of valves could easily give, say, a 30 per cent increase in flow until increased drilling removed the need for such rapid drainage, with its potentialities for damage from water and other causes. As to the effect of government control on potential supply, the record shows 20 years experience with government control in Russia, which in 1900 produced the same amount of oil as the United States, in 1916 produced one-fifth as much, and in 1929 less than a tenth as much.

In 1940, under private operation, this country produced 1,351,847,000 barrels of gasoline. Soviet Russia produced 212,909,000 barrels. That smaller production does not reflect simply a less demand. Russia has a population somewhat larger than the United States and has been importing petroleum for the past few years. Recently it has been announced that Russia has adopted rationing of petroleum because government controlled production cannot supply the demand.

Every operating man who has seen these government controlled fields tells the same story of technical inefficiency, horrible confusion and the strangling effects of red tape.

The same story comes from Argentina, where government control has been in force for 30 years and where exploratory wells have not been drilled in sufficient number to keep up with increasing demand. Thoughtful persons believe Argentina would be farther along the road toward fuel supply independence if it had made judicious bargains with experienced commercial companies instead of operating under government control. The explanation is obvious; how likely would a political employee be to continue to drill wells if he had a run of bad luck in having them turn out to be dry holes? The commercial companies do it all the time, most of the very deep wells having produced nothing except information to guide subsequent drilling.

If the supply of crude is ample to meet defense needs, and more



TRIANGLE

Diversion of tankers by government order created need for more government control

How Russia fell behind

Red tape instead of oil

Politics can't run risks



Private enterprise makes this scene common here. It isn't, where government has control

Refineries are ready

A lesson from defense

Why pick on oil?

likely to be handled satisfactorily by private enterprise than by government control, how about ability to transport it? Growth of the pipe-line system has already been mentioned. Pipe-lines to the eastern seaboard do not ordinarily operate to capacity, some of them having been converted from crude lines flowing eastward to gasoline lines carrying the refined product west. Much of the crude supply for refineries near the big eastern seaboard cities comes by tanker from the Gulf coast because it is cheaper to handle it that way. Some of the world's fleet of tankers have been sunk, and, when they operate in convoys, they move so much slower than their normal speed that it takes more tank-ships to carry a given quantity of petroleum in a year.

It is the diversion of Gulf tankers to such service, through government order, which has created the transportation emergency which more government control is now being invoked to meet. Additional tanker capacity is building and various other things, about which it may be just as well not to be too definite, are being done. The point is that they are being done and there is no reason to believe that they would be expedited under government control. Quite the contrary. Two pipe-lines under construction across Georgia have been held up by political difficulties. In one way and another there is already a large measure of federal control over petroleum transportation.

Nothing indicates that more would produce better results.

As to our refineries, since they ordinarily operate at 70 to 80 per cent of capacity, they ought to be able to meet any increase in actual demand that is reasonably possible. Additional capacity, if actually needed, could be built more quickly without government control. Private enterprise, with characteristic optimism, went ahead and built high-octane gasoline producing capacity that is ample to meet any possible need. One may well ask whether, under government control, the industry would have been permitted to be so fore-handed.

Who doubts that, with the world situation what it was, armament production would have been started long before it actually was if it had been under the control of business men instead of politicians? Building and operating refineries is a highly technical and skilled affair; all the lessons of experience indicate that it would be hampered rather than expedited if politics was injected into it.

5 ★ The Government's heavy hand

Entering wedge of federal control. Other industries don't escape. Aluminum. Steel. People with disturbed minds. Deeds once criticized prove beneficial

THE OIL industry of the United States justifiably claims to be the best functioning of our major industries. It asks why it should be one of the first to be put under government control. The obvious answer is that, because of what has gone before, it is politically more feasible to reach out for control over it, in a program of increasing government control, than it is over others. But similar moves have been made in other fields of business. The Government harassed the aluminum industry for years through anti-trust proceedings.

Now the industry is being blamed because it did not provide plant capacity to produce aluminum for the airplanes which the Government so recently as a year ago showed no intention of ordering. Now the Government has lent \$40,000,000 to a company which has had no experience in aluminum production and, so far as I know, has no assured supply of raw material from which to make it. According to David Lawrence, the projects for new aluminum plants involved a government expenditure of about \$250,000,000.

Indirectly the Government is already in the aluminum production business, and the post-war readjustments may easily take such a turn that it will remain there. Indeed, commenting on a Senator's recent suggestion that the Government simply seize the chief aluminum producer on the ground that it is a "monopoly" (an assertion which the Government has been trying to prove in court without much success), Secretary Ickes said that he thought it a good idea.

F. O. B. seems reasonable

The steel industry is another on which the politicians look with avid eyes but they have never been able to get much on it, except the system of having basing points for price quotations. Automobile manufacturers quote prices on their cars F.O.B. factory, and that seems reasonable to everybody, but somehow the steel industry got started using Pittsburgh as a basing point and quoting what was essentially F.O.B. there, no matter where the plant that actually made the steel was. That threw some minds into terrible confusion. As a result of proceedings before the Federal Trade Commission, a number of basing points have been substituted for the single one previously used.

Actually there is nothing wrong about the system, except that it disturbs some people's minds.

High government officials have criticised the industry because it did not pay out all its operating profits in dividends before 1929. If it had done that, the depression that followed 1929 would have been much worse than it actually was. Next it was criticised because it did not scrap excess plant capacity in the years when it was operating at a reduced rate. Now there is a demand for it to increase plant capacity to meet computed needs for 1942.

In times of stress it is natural for people to act hastily and with too little time to consider facts. In the World War, I was assistant to the chief of a big unit that busily figured requirements. Our mathematics were perfect but the result had no more validity than the initial assumptions on which the computations were based. Those, in many cases, proved to be totally erroneous.

If, acting on faulty premises today, we permit the Government to take over control of certain industries, the final result may be like that when the camel was permitted to put his nose in the tent.

The record of countries which have government control of petroleum offer no inducement for us to adopt this policy here. I would suggest that those who now urge increasing control of industry by government will do well to consider the future and ponder where such control may eventually lead us.

Business gets the blame

You can't please 'em

Even the strain of war needs will not bring back the horse and buggy here





"... free to throw the stuff away."

Read, but Not Dictated

CLARENCE DAY, author of "Life With Father" and "Our Simian World," offers an interesting argument in support of free speech and of Darwin's theory of evolution. "Mankind's demand for free speech," he says, "proves that we are descended from monkeys. Monkeys like to chatter and mankind insists on the same privilege. Had we been descended from tigers we might insist that dueling is the highest of human rights."

Ask several persons what they consider the distinctive feature of a free press and the chances are they'll an-

swer, "It lets an editor print what he pleases." And they are wrong, because a free press lets any one read what he pleases.

More than 1,400 Germans, between April, 1940, and March, 1941, received jail sentences or fines for disobeying a law forbidding them to listen to foreign broadcasts. One man received the death sentence; he had been a flagrant law-breaker—he set down on paper what he heard and passed out mimeographed sheets to his friends. Thus has free speech died in half the world.

The right to free speech will never

be defended as fully as it should until each of us learns to ask, not "What is it you would not let the other fellow print?" but rather, "What is it you will not let me know?" Because dictators do not seduce their peoples by controlling what is printed. The iron hand is not clasped only across the mouth. Rather it is clapped over the eyes and over the ears.

Long before the present wave of repression, before our own Declaration of Independence and, of course, before the Constitution of the United States was set on paper, a man in England said, "An honest man, like the true religion, appeals to the understanding, or modestly confides in the internal evidence of his conscience. The imposter employs force instead of argument, imposes silence where he cannot convince and propagates his character by the sword."

One of the most definitive characteristics of the world's new styles of government is the expanding executive power. This crescendo of individualistic authority, as some careful students view it, is the most basic and consistent trend of the times. No one may be competent at the moment to say where it is heading and what good or evil it involves.

The day is rare, indeed, that does not give occasion for report of the extension or continuation of new powers, new proliferations of the vast cellular growth of government.

Much of what is proposed is offered in the name of "liberalism." But what is "liberalism"? What is "conservatism"? What is "radicalism"?—And, for the good of the order, what is "Americanism"?

There is a bumper crop of interpretations. They look you in the eye from your daily newspaper. In America we can still discuss them.

The farmers' mail boxes along the highways, like the steeples of our churches, are a testament to liberty. For a few cents, the world comes to the citizen's door. If he doesn't like what he has bought, he is free to throw the stuff away. When he forms his own opinions he can try them on any one who will listen. If these opinions take hold, they may eventually become the law of the land. With the mental horsepower of 132,000,000 people, each contributing his bit, that law is a better law than one man can think up on his own.

If it isn't, it can be changed. We need not, as the dictators do, hide our mistakes by trying to turn monkeys into tigers.

No Bottlenecks in Kibitzing

ANNOUNCEMENT that 300 government inspectors, mostly women, are leaving Washington to determine if the canning industry is making proper obeisance to federal wages and hours regulations provides an interesting spectacle of what we are pleased to call "social gains" defeating their own purposes. The canning industry came into being—at least indirectly—because Napoleon, a man with some experience in all-out military preparation, offered rich rewards to anyone who would devise a means of preserving food so that an army could carry it on the march.

"An army marches on its stomach," he said.

Modern science has not yet mechanized the soldier's stomach. Food is a prime necessity for military and civilian alike. Yet, this country, while it asks citizens to pull in their belts, to submit to heavy taxation and buy defense bonds, still regards the harassing of its food producers as a legitimate government expense.

Nobody doubts that these inspectors are well intentioned. The fact remains that they, and thousands like them, are constantly adding to the uncertainties which always delay the making, transporting and distributing of useful products. Nor is the canning industry the only one that feels this uncertainty. The farmer is told by a man who takes his authority from Washington which acres he can plant and which must lie idle—what crops he can plant, and how much. The employer is told which union he must deal with. He cannot advise with employees. Nobody knows exactly which employees come under the wage and hours laws and which do not. The Social Security Board uses its power to approve allotment of unemployment compensation funds. These are only a few of the obstacles to the greater production which business is asked to provide today for the nation's defense.

The Government required 153,000,000 compulsory reports last year from business men. One corporation told its stockholders that the expense of making out its reports was \$2,200,000. A Congressman found that the federal Government's transportation bill in one year was \$76,000,000—indication of the number of federal

employees now inspecting business operations, badgering managers, and the end is not yet since each of the 50 odd new control bureaus feels that it needs more employees if it is really going to do its job of policing "effectively."

The expense and confusion of all this falls doubly on management and consumer. Double taxation—expense of inspectors, higher costs to consumers. Ironically, the business man who is sufficiently patriotic to raise his voice in protest is the first to be damned for lack of patriotism. Yet other peoples who insisted on what

they regarded as their rights have learned too late that refusal to accept temporary sacrifice meant permanent slavery.

Modern world history teaches that the inspectors who will visit the canning companies would serve their country better if they put on aprons and joined the canners rather than asking busy producers to drop their work and answer questions propounded in Washington.

The inspections may be well intended and the questioners, like a little boy with a sling-shot, may have malice toward none, bent only on the destruction of imaginary dragons. But, unfortunately, production—like the neighbors' windows or pet kittens—is just as vulnerable to stones slung with good intentions as to those slung with malice.

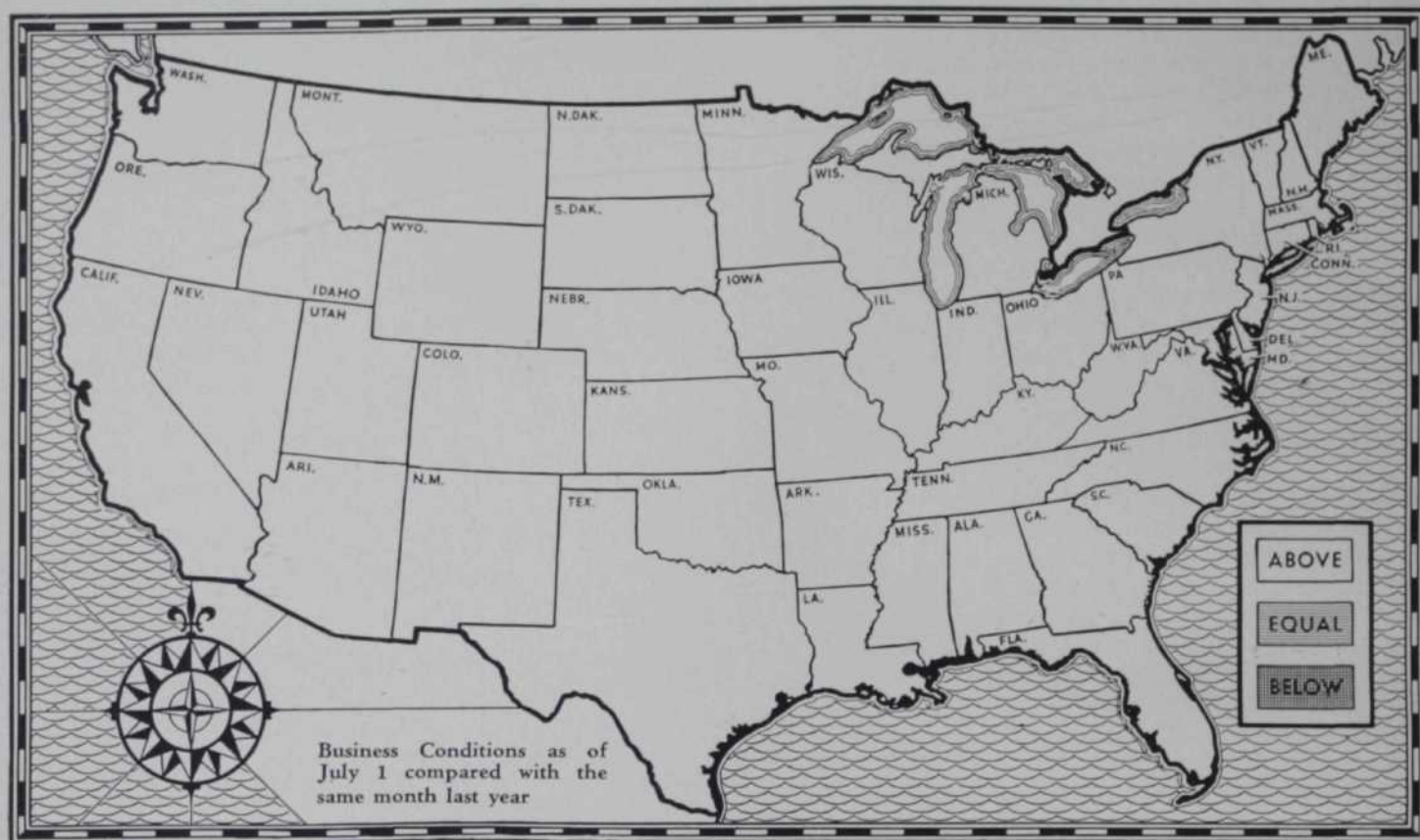
"... with malice toward none"

NESMITH



The MAP of the Nation's Business

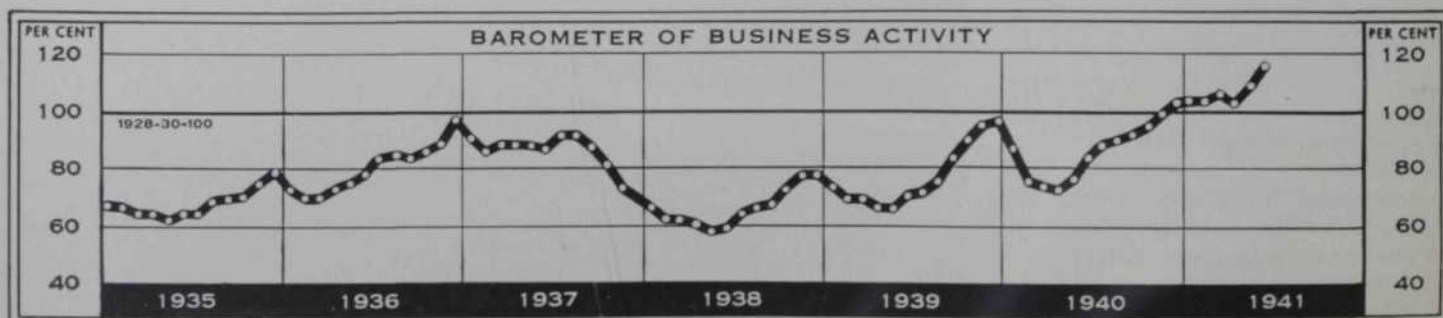
By FRANK GREENE



THE rising tempo of defense production, coupled with increased consumer purchasing power, forced business indices to new high levels in June. Material shortages, affecting both defense and non-defense lines, were the chief bars to even greater advances. Steel output, at capacity, was reported 70 per cent devoted to war related products. Retail demand for automobiles continued to exceed production, although manufacturers operated at highest rates since May, 1937.

Rail earnings reached new highs as car loadings soared to 1930 levels. Electricity output set new peaks and defense building sent construction awards 133 per cent above the June, 1940, total. Stock market prices advanced to January levels, despite a 20-year low in trading volume. Farm commodities climbed steadily to four-year highs, while rising incomes created a near boom in retail and wholesale trade. Business failures declined and bank transactions rose 28 per cent above June a year ago.

This first solid white map in the history of this feature is not an engraver's error. There is country-wide improvement over last year



Accompanied by rising commodity prices and the acceleration of defense activities, business and industry registered further marked gains during June. The Barometer again rose sharply to a high level for many years



MCMANI

We Can Feed Ourselves If—

By A. B. GENUNG

OVER A good part of the world the food situation today reminds us grimly of the slender margin between our civilized abundance and so stark and primitive a reality as actual hunger. Even in this fortunate country, where plenty is the rule, we have lately been giving some thought to certain shelves in the national larder.

There is no question as to the abundance of the general food supply here nor as to our producing capacity, barring severe droughts. Nevertheless, when a nation draws much of its labor and energies out of normal production and turns them to wartime activities, the effects reach down into the very depths of its economic vitals. Surpluses are sometimes used up surprisingly fast, as Europe can testify. It is

FROM all the talk about surpluses, you might think the national larder would withstand any emergency. But enough food is stored to last only a few weeks

a short step from guns *and* butter to guns *or* butter.

We have, too, a commitment to Britain on foodstuffs which may assume large proportions and which is complicated by any number of imponderables, including weather, blockades, lack of ships, and the general disruption of trade.

In this country, most of our thinking for 20 years regarding agricultural products has been in terms of sur-

pluses. Geared to a productive, mechanized agriculture and at the same time deprived rather abruptly of a long-time export market, our wheat, cotton, tobacco, pork, and fruit have been dammed back in accumulations that have depressed the farmers and worried the Government. Old Malthus would have been astounded

could he have come back and seen his law reversed in this latter-day pressure of food supply upon population!

But we are reminded that ordinary storage stocks and carryover are not surpluses. Nor are they the real backbone of supply. Except for wheat, our stocks of staple foodstuffs on hand today are reserves which in themselves represent only a few days' supply for the country. What we really depend on for three good meals every



Englishmen are growing vegetables in their front yard—hothouse covers are protection against frost



Babies must share attention with gardens in Britain

Week of Dec. 3 to 8	Week of Dec. 10 to 15	Week of Dec. 17 to 22	Week of Dec. 24 to 29
CUSTOMER'S SUGAR CARD BE SURE AND BRING THIS CARD WITH YOU This card is issued to protect our regular customers during the present Sugar shortage, and to assure them, if possible, one pound of Sugar each week. "FOOD WILL WIN THE WAR" Manager will punch out the dates on which the customer receives Sugar. Positively only one pound of Sugar in one week. No purchase of other goods is required. This card is not valid unless the Store Stamp and Manager's Signature appear on reverse side. THE GREAT ATLANTIC & PACIFIC TEA COMPANY			
Week of Nov. 26 to Dec. 1	Week of Dec. 31 to Jan. 5	Week of Jan. 7 to 12	Week of Jan. 14 to 19
Week of Feb. 4 to 9	Week of Jan. 28 to Feb. 2	Week of Jan. 21 to 26	Week of Jan. 14 to 19

There seems to be plenty of sugar now, but a serious curtailment of shipping might result in rationing as it did in 1918

day is the huge and constant stream of new production. With food, as with planes or munitions, the one priceless essential is producing capacity.

There we have the edge on any other country in the world.

Certainly the food picture here is in sharp contrast with that in Europe. In that part of the world, strict rationing is in effect for virtually all of the staples. It appears that food stocks and new crops in most European countries are still sufficient to maintain about the present rations. But it was necessary for most of these countries

to draw on their food reserves this past year and, even with fairly good harvests this season, the reserve stocks will be further drawn down. It looks as though this season's crop of grain on the continent will be larger than it was last year, whereas the root crops will be smaller and livestock output considerably reduced.

There is no evidence that Germany is likely to be hard pressed for food as she was in the latter part of the first World War. Agricultural production in German territory is being fairly well maintained despite some short-

ages in labor, fertilizer, and draft power. She had piled up large stocks of meat, grains, and fats at the beginning of the war. To these were added heavy requisitions from conquered countries. A large part of the German army has been living for a year or more on the resources of occupied ter-

ritory. Moreover, some imports of oils and grain are still possible from the Mediterranean region and perhaps from the East.

The German meat ration was reduced 20 per cent in late spring but, except for that, her other rations had been maintained about as they were fixed early in the war, in the light of their experiences 20-odd years ago.

Various levels of rationing

THE German population is rationed at various levels. It appears that, under this system, soldiers, workers doing heavy work, farmers, children and expectant mothers fare as well as they did in peace times. The ordinary citizen doing office work and other light physical labor bears the brunt of wartime restrictions; his ration is considerably below the peacetime level, especially in fats, meat, eggs, and milk. In fact, milk is all reserved for the children.

But even the ordinary consumer has a liberal allowance of bread and potatoes and a fair allowance of sugar.

Italy does not have her food situation as well organized as does Germany. She did not have the reserves to begin with; distribution is not as efficient; the army must live largely on home supplies; and it appears that certain foods have been exported to Germany in considerable quantity regardless of Italian needs.

Conditions in Belgium are bad, even critical; in France they are serious. They are bad enough in the Netherlands and Norway, since those countries normally depend so largely upon imports. Denmark, a natural surplus producer, is not in as serious condition. Finland is very short of fats, meats, and grain. As for Switzerland, Portugal, and Spain, much depends upon the imports which they are permitted to get. The Balkan countries are suffering from progressive shortages as a result of the German invasion.

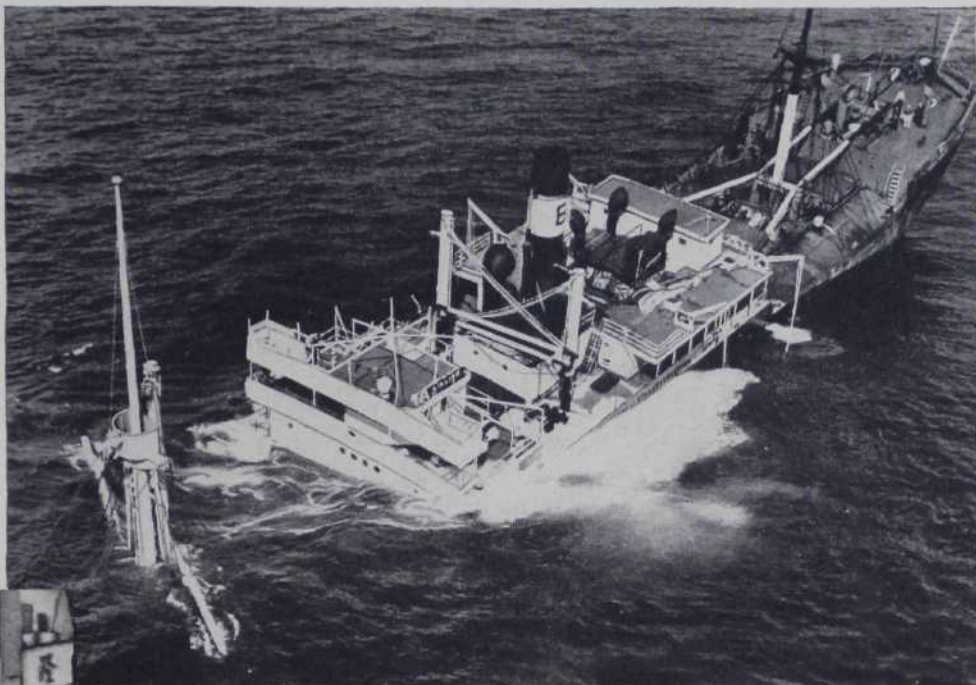
The situation in Britain is, of course, most closely tied to our own food problem. England has fairly ample supplies of bread grain and bread is not rationed. Vegetables have been reasonably plentiful also, including the important potato. The British diet is under greatest pressure in respect to meats, dairy products, and poultry

products. The English people are rather heavy consumers of cheese and butter as well as meat. The small meat ration and the shortages of milk products are especially irksome to them. The appeals of the British Food Ministry to this country ever since last spring have stressed eggs, cheese, meat, butter, and lard—things they used to get in quantity from the Low Countries, Poland, and elsewhere.

Early in April our own Department of Agriculture announced a price sup-

porting program designed to produce somewhat larger supplies of hogs, dairy products, and poultry products. It proposed to buy hogs in the open market to support a level of \$9 a hundred pounds; butter, 31 cents a pound, chickens, 15 cents, and eggs, 25 cents a dozen, all Chicago basis. That step was a recognition of the rapidly changing background of emergency needs.

What now is the situation here, on
(Continued on page 70)



NEW YORK DAILY NEWS

Lack of ships and a general disruption of trade complicates the problem of getting food where it is most needed



GENDREAU

If we should ever have to feed China, or Russia, our present surpluses wouldn't amount to a thimbleful



MCMANIGAL

Consumption of wheat in this country is about 700,000,000 bushels annually. The present crop will add 900,000,000



The community of 10,000 population or less has nearly one-half the retail stores in America. Including the surrounding rural areas, half of America lives there

"Working the Sticks" Does Pay

By DICKSON HARTWELL

ONE of the most important markets in America, one in which nearly one-third of all the retail sales in the United States are made, has been almost completely neglected by sales managers and advertising executives whose one object in life is to find new markets to conquer. This neglected bonanza is the great American Little-town; the community of 10,000 population or less which has nearly one-half the retail stores in America and where, with its surrounding rural area, more than one-half of America lives.

Ask any number of top-flight sales managers or advertising executives why they don't go after the small town market, and they'll come right back with a dozen pat answers:

"There is no income in the small towns."

"We don't have distribution of our product there."

"You can't reach the small town market by itself."

WISE market analysts, looking behind the old arguments against trying to sell small towns, find such places are now our number 2 market, and growing rapidly

"The small town is on the skids."

"Nobody in a small town buys industrial goods."

They're all wrong. These pat answers which have been handed down from generation to generation in the sales and advertising departments of our big business organizations have become sanctified with time, but today they bear just about the same relation to fact as the once pontifically disburbed and widely believed observation that the automobile would never be practical.

Today American small towns are enjoying a renaissance which makes a noise very much like a boom. Little-towns all over the country are waking up, not only because they are attract-

ing people away from the big cities but because small town merchants have recently concluded that it is the hustler who gets the trade, and some of these Littletowners can hustle plenty.

This revival of Littletown is not a defense contract "mushroom" even though small communities are getting a larger proportion of the defense business than smart market analysts apparently realize. The first indication of the upswing appeared ten years ago when a few tentative and pioneering surveys showed that the homespun lads and calico gals were actually buying some nationally advertised, branded merchandise which did not come out of a catalog. These early sign posts joined the accumulating data in the files of a

VITAL

IN EVERY

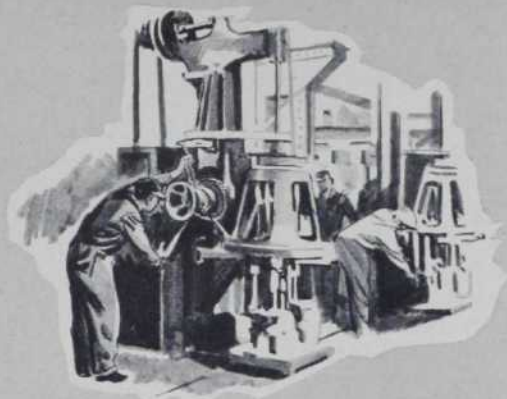
DEFENSE EFFORT

As essential as materials and man power are the figures that keep materials moving toward scheduled assembly points—that help employers meet payrolls promptly—and that furnish management with up-to-the-minute statistics on which to base quick decisions.

As defense production proceeds, it becomes more and more evident that the figure-facts so essential to business in normal times are still more essential when there are fewer minutes to spare.

Just as business has relied on Burroughs for fast, modern figuring equipment throughout the past half-century, so government and industry now rely on Burroughs to provide the prompt, accurate figure-controls so necessary to the nation's defense effort.

BURROUGHS ADDING MACHINE COMPANY
6648 Second Avenue, Detroit, Michigan



MATERIALS



MAN POWER



FIGURES

Today's Burroughs

DOES THE WORK IN LESS TIME—WITH LESS EFFORT—AT LESS COST

few statisticians and have constantly increased in number ever since. In fact, they have completely outgrown the available statisticians' indices and today are sitting right on top of the file cabinet where anybody who takes the trouble to look can see them.

Big business in small places

I FIRST became aware of this change a few years ago when I moved into a New England community so small that the post office is in the kitchen of a neighbor's house. There is a church, but no school, and the commercial life in the community is restricted to a gas station and garage and a general store. In this general store you can buy bulk coal oil, workmen's gloves, candles, tools, and seed.

You can also buy, and many people in the community do, a complete line of frozen meats and vegetables, just about every breakfast food that has been thought up, nationally famous Scotch or beer and a line of other nationally advertised products that would reach from here to Christmas. And, believe me, the thrifty New Englander who runs this store doesn't stock these products because he likes the sound of their names. His customers demand them.

What is true of this community, which is so small that its existence as such could be fairly challenged, is happening in an ever-increasing degree in more than 100,000 small towns from Ellsworth, Maine, to the up-and-coming community of National City, Calif. (population 10,204). Both the manu-

facturers of consumer goods and the manufacturers of industrial goods are likely to suffer serious losses because they are either ignoring or are ignorant of the tremendous possibilities of this vast market. They should go after that market today because tomorrow, when the defense bubble breaks in their faces, they are going to need a place to sell and need it badly.

Before looking at the bulging statistical books with their facts about Little-town, it might be interesting to consider some of the current bug-a-boos which apparently have frightened some of the most aggressive product pushers in the country. A favorite contention is that compared with the urban dweller, the local boy just doesn't have the money to spend and government income figures can be quoted to prove it. What those same figures don't show, although others, equally reliable, do, is that expenses in Littletown are much less than in the big cities. Rent is cheaper, taxes are lower, food is cheaper. There are no \$3.30 theater seats, \$2.00 cover charge night clubs, or automobile storage costs of up to \$25 a month. When the country cousin gets through with his basic expenditures, he frequently has more cash left over than even the fairly opulent city slicker.

This cash is available for advertised products and is being spent for them. Take automobiles, for example. When sales began to go up after the depression hit bottom, in one year the increase in towns under 10,000 was 38 per cent while the increase in large cities was only 18 per cent.

Another popular misconception is

that the country cousins go to big cities to make their major purchases. Certainly they do, once in a while for a spree, but it is pretty difficult to get around the fact that, in 1939, sales in retail stores in towns under 10,000 totaled almost \$13,000,000,000. That's still a lot of money and somebody is getting that business.

Another widely held idea is that women in small communities sit home and sew dresses or cook on a wood stove and use only such old fashioned shortenings as country lard. There are plenty of women who still can and do sew, but listen to what Mrs. A. L. Duncan, buyer for the Leader Department Store of Kiowa, Kan. (population 1,379) has to say:

The newspapers, radio and motor cars have taken the country out of the farm women. They are as much up to date as city women.

Farm women choose late styles

FARM women may still get their money from eggs, honey, cream and chickens, Mrs. Duncan says, but they now spend it for the latest dresses. So Mrs. Duncan, like other buyers for small town stores, makes a buying trip nearly every month to choose the latest styles. As far as the wood stove idea goes, the town of Menasha, Wis., reports that 1,300 electric ranges have already been sold to home owners on a time payment plan. The cheapest stove costs \$96. That's more than \$100,000 worth of electric ranges in one small town!

A fourth point sometimes raised is
(Continued on page 64)



Sometimes Littletown business methods may be confusing. Tony runs a bicycle shop and restaurant combination, but it is a good business

METROPOLITAN LIFE INSURANCE COMPANY

FREDERICK H. ECKER, *Chairman of the Board*
 LEROY A. LINCOLN, *President*

NEW YORK CITY

To all Metropolitan Policyholders:

Three and one-half years ago, we decided to devote part of our advertising effort to explaining how a life insurance company operates.

Since then, we have published thirty-nine advertisements having this as their aim. We have told you about mortality tables, dividends, surpluses, diversification of investments, and many other subjects. However, so far in the series we have not covered in detail Metropolitan agency practices and principles which govern life insurance selling activities.

Accordingly, we are devoting this and several succeeding messages to their explanation.

The principles underlying our sales practices are designed to help us provide you with the kind and amount of insurance protection you should have at the lowest cost consistent with safety. Briefly stated, these basic selling principles are . . .

1. Your life insurance program should be fitted to your own particular needs and those of your family.
2. In taking out life insurance, full consideration should be given to the relationship between your income and your insurance needs.
3. As your insurance needs change, or your income varies, your insurance program should be fitted to your new situation in whatever way will best serve your interests and your family's. Your Company or any representative will be glad to advise you in such cases without charging you a fee of any kind.
4. The Company should do everything it reasonably can, not only to make it convenient for you to keep your life insurance program in force, but also to help fulfill its objectives.

Life insurance companies have found that the most satisfactory way to help you accomplish these things is through the Agency System. Metropolitan agents are especially trained in life insurance, so that they may be equipped to help you with your problems. This method of selling life insurance has been given the stamp of public approval by generations of policyholders.

COPYRIGHT 1941—METROPOLITAN LIFE INSURANCE CO.

This is Number 40 in a series of advertisements designed to give the public a clearer understanding of how a life insurance company operates. Copies of preceding advertisements in this series will be mailed upon request.

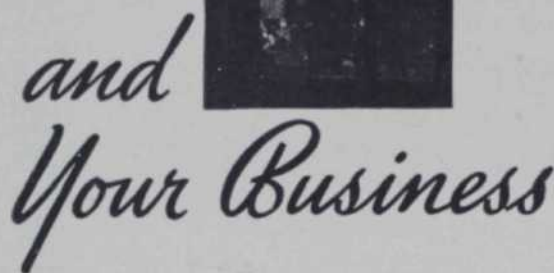
Metropolitan Life Insurance Company

(A MUTUAL COMPANY)

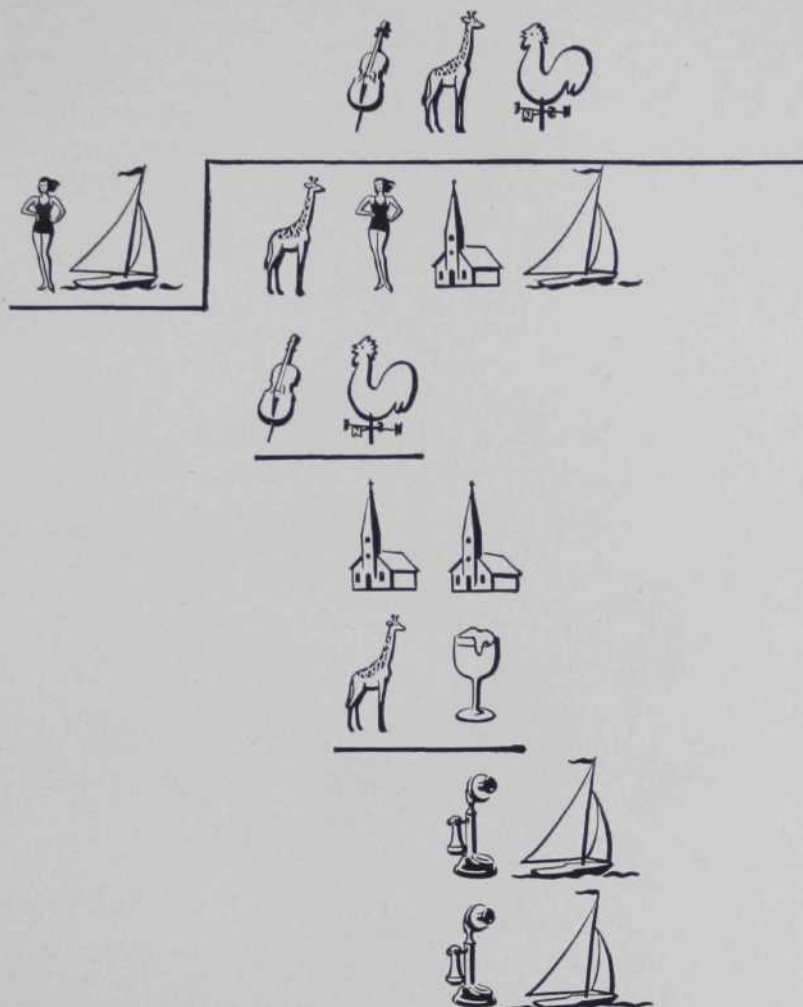
Frederick H. Ecker,
 CHAIRMAN OF THE BOARD
 Leroy A. Lincoln,
 PRESIDENT

1 MADISON AVENUE, NEW YORK, N. Y.





SIMPLE ARITHMETIC



4152 divided by 12 is a very simple problem in arithmetic.

It looks a bit confusing, of course, if you use a bathing beauty as a symbol for one, a sailboat for two, a fiddle for three, and so on—though there's no reason except convenience and convention why you shouldn't. (They're much more interesting than the symbols "1," "2," "3," etc.)

We're not advocating the reform, of course . . . merely making the

point that figures, as employed by Business and Industry, are symbols, meaningless except in terms of dollars, or customers, or carloads, or what have you.

And, in this modern blitzworld, yesterday's figures are almost as obsolete as yesterday's headlines. Management must have access to accurate, up-to-the-minute, intelligently interpreted figures if its decisions are to be sound and profitable. That's where "Comptometer

Economy" comes into the picture. For, with Comptometer adding-calculating machines, and modern Comptometer methods, Management is able to command *more figure work in less time at lower cost.*

Felt & Tarrant Manufacturing Company, 1712 North Paulina Street, Chicago, Illinois.

COMPTOMETER

REG. U. S. PAT. OFF.

ADDING-CALCULATING MACHINES

A boss who knows his business is never bothered by it.

Prospective letter writers will note that Dooley and his aides are pretty tough old personnel men. Not a soft palm in the lot.

British Can't be Licked

STATE Department friend reports his conviction that the British are invincible. He said:

We had refused to pay customs duties to Newfoundland on the automobiles of our officers in charge of our air base there. The matter was carried to London. The Privy Council ruled that our officers *must* pay the Newfoundland duties. Our State Department said it would be darned if they would. It said that air base was for the protection of Canada and the British Empire far more than for our protection and that the Privy Council had the nerve of burglars to make such a demand. In the end, the Privy Council grouchyly assented:

"We waive our rights," said the council. Mr. Churchill in the chair. This was the day following the passage of the \$7,000,000,000 lend-lease bill. A nation like that can't be licked.

Pot Licker and Greens Coming

ECONOMISTS note that we are spending a mere \$500,000,000 a month on defense over a 12 month period. Shortages in ordinary comforts and rising prices are already being noted. Wise folks are making ready for next spring's gardens. Cooks and housemaids are not easily to be found because more people can hire them, there are better paid jobs to be found, and some are going back home now that the Old Man is in the easier money. Question is what will happen when we begin to spend at the desired rate of \$3,000,000,000 a month.

Was this Nice, Dr. Hoover?

DR. CALVIN B. HOOVER, economic adviser of the O.P.M., said to the Fourth Conference on Canadian-American Affairs at Kingston, Ont.:

It is doubtful if it makes sense for us to use our industrial capacity to produce machinery for your use in the mining of gold if that gold is to be used to pay for goods purchased by Canada from the United States, when we take the gold you pay us and bury it again in the hills of Kentucky.

Might Call it Symptomatic

THE British wanted a tanker-full of alcohol. A tanker had never before been laden with alcohol. A permit was obtained. Molasses was needed. An export permit was obtained. It was necessary to find a waterside distillery. One was found.

Then not a wheel turned.

The British fumed, the O.P.M. pulled at its beard, the tanker-owners used pure dock-side, the distillery company asked why. At last the why was discovered. A clerk—one, single, worried, red-taped, bedevilled, pitiable clerk—had held it all up.

"Form PD had been used," he fretted. "The proper form is PD 1."

Congress wants Young Generals

LOOK for the rule of seniority to be thrown out of the Army's window before long, promotion ordered on efficiency only, and a thorough sifting out of the fine old gentlemen who have not kept up with the times.

And if the Army does not devise some plan for team play on its own, Congress will do the devising. German army plans will be the model. They're good.

Expansionists are Riding High

RESIGNATIONS of Gano Dunn, steel consultant of the O.P.M., and C. W. Kellogg, power consultant, underline the fact that the expansionists in the Administration are in the saddle. "Build more plants," is the word. The production of steel, power, aluminum, ships, almost everything else is to be increased. Precisely where the steel for the building of new plants, the pipes for the new pipe lines Ickes wants, the men for the St. Lawrence project the President is so insistent upon, the generators, dynamos, men, furnaces, rolling and finishing equipment, are to be found without a fatal interference with defense production is not obvious.

T. N. E. C. Inquiry is Recalled

THESE facts in turn emphasize the significance of the plan of the Rockefeller Foundation to inquire into post-war possibilities. It is recalled that during the T.N.E.C.'s heyday some administration spokesmen urged their theory of immensely increasing production along all lines in order to force prices down. If the enormous expansion now being financed by the R.F.C. cannot be operated successfully by private capital after the war, the Government will presumably take over. Raymond Moley suggests gigantic changes in the economic life of the nation are possible on a greater scale than any heretofore contemplated by our economic planners.

Don't Look at Them Now, But-----

SHIPPING men do not like the new coffin-shaped ships the Government is turning out. They only hope that they will not find themselves gypped out of their own good ships when the war is over, and having the coffin-shapes forced on them. Sales and requisitions have cut the American merchant marine down to a practical parity with Japan and western hemisphere cargo-carrying has been seriously interfered with.

No Eastern Oil Shortage Feared

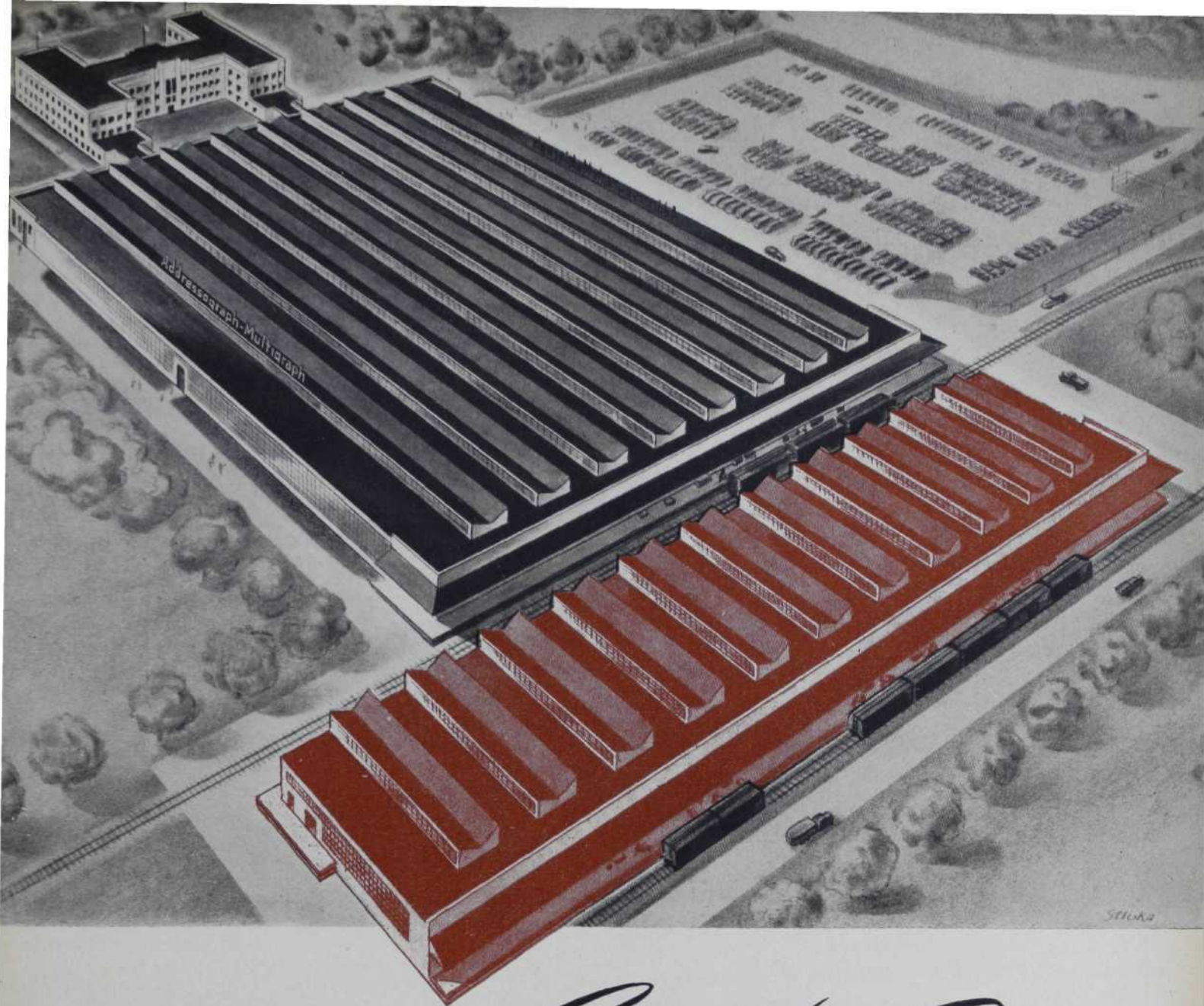
OIL men are daring the Ickes' lightning by declaring that, if the President's Petroleum Coordinator will only let them alone, there will be no oil shortage in the East. Maybe they are not in as much danger as they might have been at one time. Mr. Ickes so seriously out-spoke himself in his charges against the aluminum industry that his nuisance value has been lessened. If he does interfere with the oil men—and then there is a shortage—he is in the sump hole up to his ears.

Ickes Lost a Power Battle

NOTE that Ickes lost his fight for government ownership and control of the eight new aluminum plants to be built by the Defense Plant Corporation, financed by the R.F.C., and to be leased for private operation. The plants are to be located in areas where they can probably get power from publicly owned plants to be constructed. The new plants were made necessary by the wholly unanticipated demand for aluminum in the "arsenal of the democracies" defense project.

Troubles of the Great Minds

DOUBTFUL if even Undersecretary of State Adolph Berle can solve this problem. The makers of plastics have put a new tooth brush bristle on the market.



TO HELP INDUSTRY *Speed Up Defense*

★ For nearly half a century Addressograph-Multigraph has been serving business with methods that save time and money by *simplifying procedures and preventing delays, mistakes and waste.*

Today, with defense production requiring maximum *saving of brain hours and hand hours*, these Addressograph-Multigraph functions are more important—and in greater demand—than ever before.

To meet this growing need of industry for our products,

To users of our products: The services of our Methods Department and trained field personnel are available to assist you in extending the use of your present equipment and broadening its effectiveness. Take full advantage of these services.

we have enlarged the facilities of our Cleveland plant.

In many thousands of busy offices, shops, plants and factories, Addressograph, Multigraph and Multilith are helping to—*Speed Up Order Handling • Prevent Waste in Fabrication • Stop Loss of Productive Hours • Maintain Effective Inventory Control • Eliminate Errors in Routine • Simplify Record Keeping • Improve Payroll Procedures • Provide Accurate Instructions • Speed Out Communications • Reduce Report Burdens • Lower Operating Costs.*

ADDRESSOGRAPH-MULTIGRAPH CORPORATION, Cleveland, Ohio

SHOULDER TO SHOULDER WITH YOU IN AMERICA'S DEFENSE

This is an infant industry and therefore to be coddled. The new tooth brushes immediately leaped into tremendous demand in the Mohammedan East, which cannot accept pig bristles in tooth brushes because of the Holy Law. But pig bristles are one of the few Chinese products we buy and China is our fine and heroic friend. What to do, Mr. Berle? What to do?

Mr. Ford Played an Ace

OBSERVERS think that Henry Ford's action in giving the C.I.O. more than it really wanted may result in cleaning up the very noisome political-labor situation.

They think that Ford's agreement to the closed shop, the check-off, and the shop steward means that labor will eventually be solidly unionized, soundly financed into the hundreds of millions annually, and controlled by a small group of bosses. That means the creation of a labor party strong enough to shove any national administration around instead of bargaining and parleying as in the past.

This—they say—would force a show down between labor and the other voters, to the country's great advantage.

They may be wrong.

Not Worried at the N. L. R. B.

AT the National Labor Relations Board they say in effect:

The Wagner Act will not be amended at this session. Congress is too busy to bother with us.

Opposition to the N.L.R.B. has largely died down.

We have gotten rid of some fools and firebrands.

In five years we have learned our business.

Today's good deed is the recommendation to employers that they study the testimony of Member Leiserson before the Senate Committee on Education. Write the Board.

Odds and Ends Paragraph

FACT that Britain is buying our cotton again suggests that shipping conditions on the North Atlantic have improved. . . . 20,000 bales a month will be taken from the government warehouses. . . . Census reports, roughly averaged, indicate the American farmer is 52 years old, mostly mortgaged, has an eight-year-old car and a seven-year-old tractor, is likely to have a telephone, radio, and electricity, and the kids are drifting to town. . . . Military analysts think England is no longer in danger of invasion. . . . O.P.M. plans to set up "advisory committees" in 30-odd industries. All members will be hand-picked by O.P.M. . . . Separate advisory committees may be set up by labor. . . . Ballyhoo about simplifying styles goes back to Hoover's 1930 plan.

Leiserson is a Diplomat

LEISERSON was taken from the Railway Mediation Board, on which he had been notably successful, and placed on the N.L.R.B. when that body acted like a tumor hitched to a whistle. His statement to the Senate committee could not offend anyone, but it could be reworded into an acid criticism of the multiplication of committees, the placing on them of nice men who do not know anything of their new jobs, and the assumption of authority not based on law. His cry is for trained men in government posts rather than for eloquent amateurs.

Foreseeing the Next World War

SOME military men think Hitler is winning a campaign and losing a war in Russia. Their theory is that the Nazi forces will eventually push on to the Volga River line, but will by that time be tired and their equipment will have been badly battered. The destruction of crops and factories, plus the Russian talent for sabotage and the fact that the collectivized farms of Russia will not be productive until new gasoline driven machinery can be obtained, will deprive Germany of really worth while profits for at least another year. This will in effect compel her to make peace in the west. Their assumption is that Hitler will try to consolidate his material gains in Europe. During this breathing space he may plan the Third World War.

Every Sentence a Story

BERNARD BARUCH continues to maintain that there can be no price control without wage control. . . . In 32 cases the National Defense Mediation Board has granted wage increases and in 13 no decision has been reached. . . . Gossip is that if and when a price control committee is set up it will be headed by a \$15,000 a year man and have 2,000 employees. . . . The wire tapping bill failed in Congress because of personal antagonisms and not on its merits. . . . Tax bill reported by the House Ways and Means Committee leaves 95 per cent of the people free of direct taxation. . . . State Department definitely does not fear belligerent action by Japan. . . . Brookings Institution reports that a victorious Germany will need world-trade more than pre-war Germany did. . . . Chairman Fly of the F.C.C. may be given a better post so that the row he made with the radio companies may be settled by his successor.

Department of Pure Fun

A. W. HUTCHINGS of Nashville, Ill., wrote that he planted 150 acres of wheat:

"I did not participate in the government crop program. I felt that a citizen should not take a dole from the government."

Omitting the mathematical hieroglyphics of the transaction Mr. Hutchings was then fined \$530.67 for planting wheat on his own land.

"If the bill is not paid within 60 days the U. S. District Attorney will enter suit even if I store the wheat in my own granary. And I cannot sell the wheat until I have paid the fine."

Offered to Information, Please

DEPARTMENT of Commerce says income payments to individuals are estimated at \$85,000,000,000 for 1941. Of this the federal Government will spend \$22,500,000,000.

If this is simply taking \$22,500,000,000 out of one pocket and putting it in another, then the net national income would seem to be \$62,500,000,000. But if \$13,000,000,000 of the Government's money is borrowed then is it proper to deduct that sum from the \$62,500,000,000 net, leaving a net of only \$49,500,000,000? Or is it better not to worry?

Herbert Corey

OIL RESEARCH GOING OVER WITH A *BANG*



MOST of the discoveries at Shell's research laboratories have enriched the peaceful arts. But when they found a new way to get *toluene*, basic ingredient of TNT, out of petroleum—that was big news in the War and Navy Departments...

TNT for the big guns, bombs and depth charges—potential supplies unlimited. For national defense, oil research was going over with a bang!

The first commercial-scale toluene plant in America—to produce 2,000,000 gallons yearly—was completed by Shell last December. And Shell scientists have now perfected a process for greatly expanding this production.

Spectacular research! It has brought not only TNT—but a key to the production from petroleum of synthetic rubber, plastics, fertilizers, germicides, glycerine. Yet these are by-products...

This research finds its main outlet in the constant improvement of Shell fuels and lubricants.

INDUSTRIAL LUBRICATION must now have the benefit of all the skill which can be applied to it. It is the pace setter for production. Yesterday's

solution is seldom good enough for today.

With 821 scientists and assistants, and an investment of \$3,500,000 in research facilities, Shell's research organization is measuring up to the responsibility—assuming leadership.

In literally hundreds of instances, Shell lubrication engineers have opened the way to increased production and lower operating costs—by improving lubrication methods.

Before Shell industrial lubricants are offered to you, they are plant-tested—proved—under all kinds of actual operating conditions.

With the use of Shell lubricants, you are assured the continued watchfulness of Shell men—a service which needs no prompting.

• • •

Are you quite sure that your plant has the benefit of all that is new in lubrication, as it develops? You will find a Shell man's recommendations entirely practical—and made without obligation.

SHELL INDUSTRIAL LUBRICATION



A Girl With a Grip of Steel

By JOSEPH M. WERESCH

MEET Vivien Kellems, who is willing to crawl down a manhole although she is one of the country's best dressed women and makes \$50,000, exactly, every year

NEVER in her balmy moments did Scheherazade regale her Arabian Sultan with a tale more fantastic than the story of the little puzzle, now grown up. Centuries ago King Tut laughed as Princess Nefertiti stuck inquisitive fingers into a woven straw tube and found herself trapped. The harder she pulled, the harder the little tube gripped her fingers.

Orientalists played with it, amused at its tenacity, although inscrutable faces betrayed no sign of interest.

Now, several thousand years later, this same puzzle principle, woven of steel wires, has enabled another woman to carve out for herself one of the most successful feminine careers in the United States.

Her name is Vivien Kellems and, to look at her, you would not believe that she is the only woman manufacturer of electrical equipment in the world. She



MULLER-KING STUDIOS

Miss Kellems climbs out of a subterranean labyrinth after watching her grips at work

is five feet two, weighs 115, has blue-gray eyes and brown hair. A Boston reporter in a breathless interview says, "Vivien is for liveliness, loveliness, wit and sparkle." He reports that she looks like a post-débutante. The first draft of this article said she was in her early thirties. She marked this out and wrote "that's a fib" in the margin.

In any event, she is president and founder of Kellems Products, Inc., manufacturers of cable grips that pull cables through underground conduits so that cities may have electrical service.

Her efforts in this line are said to give her an income of exactly \$50,000 a year, never more, never less, a figure she does not confirm or deny. She only says resignedly:



King Tut's versatile puzzle, like its modern maker, is equally at home in a pantry or a construction job

Wanted: Skilled Labor



The warning is plain in the want ads today:

Skilled labor is scarce in America—and getting scarcer.

Losing the services of a single skilled hand is a serious blow to any plant today. No more where he came from.

In critical times like these, isn't it common sense to give maximum protection to the skilled men on your pay roll?

You can do it by establishing in your plant at once—regardless of its size—a planned safety program. You can do it without cost, without bother, without any interruption through Lumbermens Safety Engineering Service.

An expert, who knows plant safety from A to Z, will survey your operations and talk over his findings with you. Then, if you say the word, a safety program will be drawn up, launched and carried out in detail.

You'll be surprised at the quick

results of such a program. Down goes the cost of your workmen's compensation insurance. Up go your profits!

You're protected from the hidden costs of accidents, ***frequently four times the amount paid out by the insurance company for medical care and compensation.***

Yes, each time your insurance company pays out, say, \$400 on an accident, chances are the ***hidden costs*** of that accident to you are \$1,600—in the loss of skilled services; in machinery; in product damage; in personnel readjustments, all of which lowers morale, and efficiency, and

production and, ultimately, profits.

Busy constantly in plants of every description all over the country, Lumbermens Safety Engineers are not only sharp eliminators of unsuspected plant hazards; they're human engineers, too.

Discussing the possibility of a planned safety program for your plant will take very little time. It might well turn out to be one of the most profitable talks you ever had.

One of our experts will be glad to call at your convenience. No obligation to you whatever. Why not drop us a line—today?

Lumbermens

MUTUAL CASUALTY COMPANY

JAMES S. KEMPER, President Home Office: Mutual Insurance Bldg., Chicago
Operating in New York State as (American) Lumbermens Mutual Casualty Company of Illinois
Affiliate, American Motorists Insurance Company



"A newspaper reporter once very kindly gave me that salary in a story about me and it seems that I'll always have that amount. Isn't it nice?"

Which is as good a way as any of showing that she has a sense of humor.

Miss Kellems graduated from the University of Oregon with A.B. and M.A. degrees but no ideas about her future except that "I was absolutely determined not to teach school or marry a preacher. My father, most of my ancestors and two of my older brothers are all preachers."

Finding a market

SHE became a booker for chautauquas until the lecturers lost her interest. Then she veered to theatrical publicity work. While she was playing this circuit, Lady Luck gripped her with, literally, a hand of steel.

That was 14 years ago. Her brother Edgar, an inventor, adapted the woven tube principle to cable grips. A typical inventor, he invented and was through. He didn't think there was a market for the thing anyhow. He gave it to his sister.

Miss Kellems, although she had majored in college economics, knew little about business or factory procedure.

"I not only did not know there was such a thing as a cable grip," she says. "I didn't even know there were

(Continued on page 56)



One reason why Miss Kellems is among the "best-dressed" women. She likes this photograph. So do we



From the back of a truck she helps prepare a cable for installation



This Man's Army Eats!

ASK the boy who used to grease your car, the son of your family doctor, or that young man who was about to tackle the bar exam . . . ask any of the lads you know next time he's home on leave. He'll tell you the U. S. Army *eats!*

And certainly no part of preparedness is more important than that. So it makes York men pretty proud to reflect on the part York engineering and York equipment are playing in preserving that good food in cantonments all over the nation.

And, to realize how big a job that is, consider that the Quartermaster provides 12 ounces of meat, 10 ounces of bread, 8 to 10 ounces of vegetables, 6 to 8 ounces of fruit, a half pint of fresh milk, 5 large cups of coffee, plus eggs, butter, sugar and condiments to every man every day.

Consider further that cantonments vary in size from

2,000 to 50,000 men, run the scale of climate from Newfoundland to New Mexico and that three days food supply is kept regularly in the kitchen refrigerators and a similar quantity in cold storage on the reservation!

In providing cold storage and ice making plants, service refrigeration for the kitchens, the Army has made extensive use of York's 56 years of experience . . . and York's nationwide field organization which furnishes skilled engineers familiar with local conditions as well as the problems of mechanical cooling.

This same experience, reflected in more than 150,000 *engineered* refrigeration and air conditioning jobs, is at your service.

York Ice Machinery Corporation, York, Pennsylvania.



YORK REFRIGERATION AND AIR CONDITIONING

"Headquarters for Mechanical Cooling Since 1885"

A FEW OF THE MANY NATIONALLY-KNOWN USERS OF YORK EQUIPMENT—American Air Lines • Armour • Bethlehem Shipbuilding • Borden Canada Dry • Coca-Cola • Curtiss-Wright • du Pont • Eastman Kodak • First National Stores • Firestone • Ford • General Baking General Foods • General Motors • Goodrich • Montgomery Ward • Pabst Brewing • Pennsylvania R. R. • Procter & Gamble • Sears Roebuck • Shell Oil • Stix, Baer & Fuller • Swift • Texas Company • United Fruit • U. S. Army • U. S. Navy • Woolworth



ACME

Apostle of Spending

IN LAUCHLIN CURRIE'S Washington office are three large scrapbooks bulging with clippings. This collection represents only a small part of what has been written about him since he came to Washington in 1934. Few men have received more attention from the Washington feature columnists.

All of them stress his passion for anonymity.

Mr. Currie today is one of the President's anonymous secretaries. Like the others, he helps the President to map policies, plans and strategies. Once a course is agreed upon, others less anonymous are found to carry it out. Thus

WHEN Lauchlin Currie, anonymous adviser to the President, chose London instead of Oxford as his alma mater, our fiscal affairs were affected

the Hendersons, the Hillmans, and others whose names appear in the headlines are merely the field officers struggling toward objectives selected for them by the general staff. Supposition is that they hold their jobs only so long as they satisfy the policy makers.

Among the anonymous hierarchy,

Lauchlin Currie is the Number One economist and one of the most trusted.

"He really has influence over the President," one observer says, "and indirectly he has had a tremendous influence on this country."

Like the other anonymous helpers, he has an office in the State Department. Unlike some of them, he spends much time there, seeing a steady round of callers and examining the economic ideas they bring to him.

Callers find him to be a gentle little man who speaks softly.

Behind his gold-rimmed spectacles,



WHO WILL PENSION THE OWNERS?

*An Advertisement Addressed Solely
to the Majority Stockholders of Corporations*

FACED with the uncertainties of the next few years, you may have wondered how you can look forward to some of the financial security provided for many of your employees through pension plans or social security.

For, generally speaking, these are the alternatives which lie ahead of the principal owner of a corporation when he reaches retirement age. Either he must live on such dividends as his ownership interest may provide, or he must dispose of his stock interest and reinvest the proceeds to provide an income.

The first plan might provide an inadequate or, at best, fluctuating income and might also be prejudicial to the best interests of the company's active management. The second plan—sale of stock interests—might take effect at a time when conditions would

make such a transaction unprofitable, or even impossible.

How then can the owners of a business avoid these grave uncertainties and assure for themselves a satisfactory retirement income, plus an orderly and equitable liquidation of their interests?

Many men are finding the solution to this problem through some of the new methods developed by The Northwestern Mutual to meet the changed conditions imposed upon both corporations and individuals. One such plan would provide funds with which designated key men in your business could acquire your stock interest either at a stated age or upon your death, thus assuring not only the protection you seek for your own or your family's future, but a continuity of ownership and management interests.

If you would like to find out how this or other plans might be applied in your own company, talk to a Northwestern Mutual agent. He can bring to you this company's experience in the conservation of business and estate values under present economic and regulatory conditions.



We are **THE NORTHWESTERN MUTUAL**
LIFE INSURANCE COMPANY
MILWAUKEE, WIS.

his eyes are kind. His hands are small and warm. He smiles with a touching air of diffidence. But he has a hard jaw.

"In certain lights and angles," says a man with a turn for phrase-making, "he looks like a steel-jawed nutcracker in good humor."

Another finds that his profile suggests that it was cut from a block of Scotch hardwood with a hatchet. Most agree that he is tough, inventive and fast on his feet.

Others who know him pretty well—some do not like him—submit these individual judgments:

He has a perfectly hellish stubbornness. Above all else he is an advocate.

He never sees a fact that is not in support of his position.

He is not objective.

He is ingenious in marshalling facts in support of a theory.

His technique and loyalty are 100 per cent.

He has plenty of courage.

He is mechanically minded. Thinks in oversimplified terms.

He is the slave of his own notions.

He is unable to change his mind.

He does not respond either to cakes and ale or the needle.

The Currie record, both in Washington and earlier, shows some of these views to be at least partially ill-founded. They are reported here merely in the interests of a rounded point of view.

Studied economics

LAUHLIN CURRIE—his friends call him "lauch"—was born in Nova Scotia 38 years ago. He is now a naturalized citizen of this country. His Scotch ancestors had been prosperous merchant shippers for generations. Their ships sailed off laden with codfish and notions, returned with rum and silks. The earliest Lauchlin recollection is seeing the men and women dash out to the flakes where codfish were drying to cover them against a threatening storm. When the changing tide of international trade impinged on this kind of commerce, Currie's well-to-do father retired from business. He died in the little town of West Dublin in 1906 when his son was four years old, and the family moved to Antigonish, Nova Scotia.

The boy's education was beginning. St. Francis Xavier's College at Antigonish is remarkable for a number of things, but chiefly, perhaps, for its exploration of cooperative trading.

No doubt Currie would have gone into economics in any case. He has that kind of a mind.

But his studies of cooperatives inclined him in that direction. When the family moved later to Massachusetts he was already a studious young fellow given to spending his evenings with a student lamp and a book. For relaxation, he drove automobiles with his foot on the floor board.

When he was 13 he broke the transcontinental records for his age class with his mother as sole passenger. He still maintains a deft hand on a steering wheel and, when he first came to Washington leaving his wife and two sons behind, he used to drive 500 miles over a week-end to see them.

He also probably holds some sort of a record in Europe where, on a bicycle trip many years ago, he was arrested 17 times for breaking the speed limit.

He did not spend all his time in Europe breaking speed laws, however. Primarily he went there to attend the London School of Economics, a choice which today is having reverberations in the economic structure of the United States.

His American instructors, recognizing him as a juvenile shark for economic theories, had urged him to attend the Oxford School of Economics. He preferred London, however, because it is an interesting city and because he could watch British methods of international finance.

Influenced by Keynes' theory

IN THE London School he came under the influence of John Maynard Keynes, British economist and exponent of the theory that it is Government's duty to spend a lot of money and go into debt.

Currie brought this philosophy along when he returned to the United States to do post graduate work at Harvard where he received a Master's degree and later became professor of International Economics at the Fletcher School of Law.

He taught a course on "Money and Banking" from 1927 to 1933 and the memoranda he prepared unquestionably had an effect on the policies which the New Deal accepted later.

He also published "Supply and Control of Money in the United States" and it was attacked by a great many of those who could understand it. Currie does not now defend it:

"It is out of date," he says with a grin. "It was all right in its day but times have changed. I guess I wrote it because I was a professor at Harvard and a Harvard professor is expected to write a book."

Unlike most authors of books, he does not appear in "Who's Who." Some point to this as proof of a desire for anonymity.

Presently he was collaborating with Dr. Alvin H. Hansen of Harvard and Columbia and various government posts in a study of the causes and possible cures of economic depressions and the reasons for cycles in business.

Prof. Jacob Viner, of the University of Chicago, was interested. Viner came to the United States in 1914 from Montreal, was naturalized in 1924 and had been a leader in what was then known as progressive thought.

In 1934, Secretary of the Treasury Morgenthau made Viner his Special Assistant.

"I want Currie," Viner said.

This although Viner was a "balance the budget" man and Currie definitely wasn't. Some say Viner was attracted by Currie's technical skill.

"He's your man."

Currie was a member of the 14 man brain trust—the name originated with them—whom Morgenthau put to work trying to settle the world's fiscal problems. Morgenthau did not pretend to know anything about high finance. The

14 played with the idea of giving the Government authority to control the spending of savings.

"Unless savings are put to work, spending and consequently the income stream is dammed to some extent."

They worked on such teasers as the unification of the banking system and the nationalization of all banks as a substitute for the Federal Reserve System, the operations of the Gold Devaluation Act, the distribution of tax burdens, the relationship between federal, state and local taxation, the need for administrative simplification and revision and—

This is the one with stinger in it—

"The possibility of making use of revenue provisions as a device for stabilizing business affairs and finance."

Currie met Marriner Eccles, then also with the Treasury, and they became friends. Perhaps that is too warm a word for their relationship. Eccles is not a conventional financier. Whatever he knows about economics, he taught himself by the trial and error fashion in his chain of Utah banks. He came to Washington early in the New Deal to tell about it.

He was brash and voluble and it developed that, as a free-for-all debater on fiscal matters, he could run the average expert up a tree. He did not want a job when he came to Washington but one was forced on him.

A change in fiscal policy

MOST people believe that Currie convinced Eccles of the glories of spending. Currie says that Eccles already had that philosophy.

At any rate, those who remember dates point out that the President's change from cutting expenditures, veterans' allowances and so on, to a policy of governmental spending seems to be coincident with Currie's growing importance in the fiscal picture.

When Eccles became head of the Federal Reserve System, he took Currie with him, over Morgenthau's protests, to work on several research jobs.

People called Currie, "Eccles' one-man brain trust."

By 1936 the gossip columnists were also calling him "one of the men closest to Roosevelt." Some see significance in the fact that most Currie publicity has appeared in columns, rather than in the stories by straight reporters. If they are mistaken in their belief that this is by design rather than chance it is a natural error.

In 1938 he appeared importantly in the headlines by giving the President an explanation of the recession. There are less certain roads to fame. Leon Henderson is supposed to have brought attention to himself in the same way earlier although his explanation was different.

His theory that monopoly price fixing was responsible brought on the attack against the steel companies.

Currie's idea was that:

The U. S. security taxes took so much out of the public pocketbook that the Government's net contribution was reduced during the crucial March-September period in '37 to a monthly average

of \$60,000,000 whereas this average had been \$335,000,000 during 1936.

At about the same time he suggested the two-budget proposition:

Compensatory federal spending to stimulate heavy industry might be more flexible if concentrated in large part outside the regular budget.

To make this plan attractive to business he ingeniously—that word is from an admiring New Dealer—stuck in the so-called railroad equipment provision under which the roads could lease equipment on a basis that would end up with them owning it.

This would, it was explained, "help industry, not put Government in the equipment business or add to the government debt." It did not get by Senator Wheeler.

Appeared before T.N.E.C.

CURRIE got his next accolade when he appeared before the T.N.E.C. to show that there was no more outlet for private savings investments in this country. He was in charge of the capital investment display when the Committee was building up its case against capitalism.

He is also credited with providing the background for the President's statement made early in 1940 that the country's debt was less than it had been in 1932. The statement, made in answer to an attack by Thomas E. Dewey who was then stoking his fires for a run at the Republican nomination, caused so much discussion that the President felt called upon to explain.

This he did at Warm Springs with Currie at his side. The explanation was that, while federal debt was higher, state and private debt were lower.

Eccles did not want to let Currie go to the presidential establishment but he had no choice. Currie had never forced himself into the White House group, nor, for that matter, very deeply into any Washington group. Although he plays a French horn he does not use the talent as a social asset.

He appears at cocktail parties rarely and reluctantly, probably because the conversation at Washington cocktail parties runs high in decibels and low in clarity. Now and then he has an evening with a few cronies at which times he reveals an aptitude

with a bottle of Scotch and the best stock of mildly ribald stories in Washington, but, for the most part, he prefers ideas to joviality.

Shares the President's ideas

IT IS not unnatural that his ideas march right along with those of the President since the President's ideas, on spending at least, are mostly those that Currie has urged from 1927 on. This apparently provides a communion of spirit superior even to bad news. At least it was unshaken when, in May 1940, Currie warned the President of a coming summer slump that would affect the campaign.

Perhaps Currie's way of putting it made the dire prediction seem more palatable.

"He has the gift of imparting bad news with the impersonal cheerfulness of a physician," according to an admiring columnist.

In January of this year the President sent him to China to find out what was going on.

The State Department had been getting reports from Ambassador Nelson T. Johnson, who stands close to the top of the intelligence squad in our foreign service.

Johnson has been in China so long that he talks slang in Chinese, likes Chinese food and thinks in the Chinese way.

Patient and unhurried, Ernest Hemingway said of him that he would be willing to wait 20 years for an answer.

Ambassador Joseph Grew was also reporting on the Japanese viewpoint. The President wanted a report on affairs as seen through a fresh eye.

Perhaps he thought, too, that an economist might get a slant that the career diplomats would overlook.

Business deals, too?

INDICATIONS are, too, that Currie went to China with authority to talk a little business although the assumption, sometimes mentioned, that Currie went to get the Chinese budget in order seems, on its face, in error. The Chinese had no budget; nothing but an unbacked paper currency, enormous needs and the Axis pressure was great. It was desirable that China continue its resistance to Japan, a resistance which threatened to peter out.

The trip was ingeniously planned. It had to be. If Currie were sent openly to China, the wary Chinese might have suspected that Ambassador Johnson was no longer in favor, an embarrassing conclusion.

A round-the-table shot was played, the right man was found, and Currie received a personal and official invitation from the Chiang Kai-Shek Government.

He departed bearing an autographed photograph of the President as a gift to Chiang; his mission:

"To secure first hand information on the general economic situation in China and to consult with the Chinese Government in regard to it."

When the Chinese diplomats in Washington were asked about the Currie trip, they replied blandly:

"Read between the lines."

China welcomed him cordially, the more so because he was a scholar and China preserves its reverence for book-learning; it likes to see scholars entrusted with real errands.

Although not at his best before an audience—newspaper editors meeting in Washington recently called his address "damn dull"—Currie made a tremendous impression on the Chinese. Papers there report that he put the inner circle around Chiang on its best behavior, offering as evidence an incident which occurred when the American was riding with the Governor of



"The Nazis claim to have sunk it this afternoon"

He has a hospital in his pocket



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Szechwan, an intimate of Chiang.

Their car hit a ricksha and the governor not only stopped, he submitted to a five-minute tongue lashing by the coolie.

He met most of the important people in China including Chow Enlai, who was reported to be the most articulate of Communist leaders, whom he is said to have encouraged to return to the Kuomintang.

Full of the disciplined curiosity of a trained economist, he asked questions and, so far as has come to light, the Chinese held nothing back.

He lectured, listened and asked more questions.

He returned to this country with four coolie loads of Chinese presents and a high opinion of Chinese qualities. He is convinced that they are essentially democratic and he has a warm admiration for their courage.

Encouragement for Chinese

HIS mission was neatly backed by a change in the Navy command in eastern waters, which to Chinese observers seemed to presage a possibly more vigorous attitude toward the Japanese.

His return was followed by financial aid to China, the promise that American experts would be sent across the Pacific to take charge of transportation on the Burma road and various minor items which add up to the conclusion that Currie had been something more than an economist on his trip to the East.

Four days after he flew home—his friends deny he was air sick—President Roosevelt told a press conference:

China expressed the magnificent will of millions of plain people to resist the dismemberment of their nation.

Shortly afterward Chiang responded:

The people of China will be immeasurably heartened by your impressive reaffirmation of the will of the American people to assist them in the struggle for freedom from foreign domination and the resumption of the march toward democracy and social justice for all.

A few weeks later Chiang announced a wholesale reorganization of his government.

What all this means is not necessarily clear. Some see it as an effort to sell Chiang on social justice—to bring the New Deal to China.

Some say that Chiang now fancies himself as another Roosevelt and that the Chinese peasants have a renewed belief that they have something to fight for.

Currie offers no explanation. On a speaking trip in Canada shortly after his return, he told Toronto newspaper men:

There is really nothing I can say. Many things have leaked out about my trip to China but not from me. I am afraid my Washington newspaper friends are terribly provoked.

Now as "Administrative Assistant to the President," he administers the lend-lease bill to China. He is always busy, accessible and reportedly not well disposed toward publicity.

The economic ideas of other men are routed over his desk. A fair assumption is that, if a good one comes to him, he looks into it, under it, tests it for flaws and base metal and, if it agrees with his own thought, it will get to the President or somebody delegated by the President in due time.

A critic's definition, "In the Currie lexicon, an economist is a man who thinks as he does," implied that ideas which he does not regard as good would not get anywhere.

He is more likely to be cautious than he was in 1934 when he wrote that book about money which he now regards as hopelessly out of date.

He might confess now that he is puzzled. He might not have made such an admission in 1934.

He believes, for instance, that a mechanism has been devised by which the danger of inflation can be averted and the twin danger of a disastrous post-war deflation avoided. The machine is there. Broadly speaking, he would cut down on government spending—not on defense spending, of course—during the up-grade period, and resume government spending when it seems advisable to direct money along the channels of trade. He does not think it makes much difference how much money is piled up in the banks.

As long as it stays there, inflation will not start. When it ceases to be inert and begins to pour out, multiplying itself as it goes, trouble is ahead.

Inflation can be controlled?

THERE are devices by which that money can be held in the banks, he thinks. If the taxes are so high that people have little to spend and prices are so high that people can buy little, then the danger can be controlled:

"We can do these things if we want to do them."

He is by no means sure that we will want to do them.

Perhaps he discusses these things with Senator Bob LaFollette whom he sees frequently, since Mrs. Currie and Mrs. Phil LaFollette are sisters. Both were originally New England girls, Bacons, and distant relatives of Calvin Coolidge.

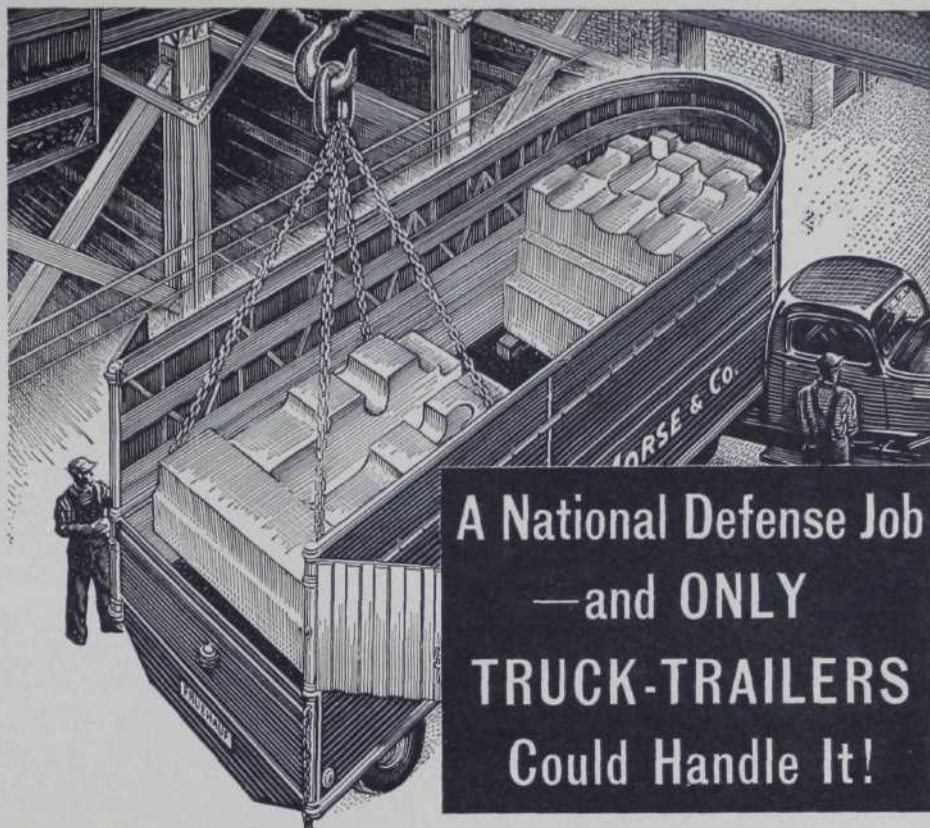
He is not dogmatic about the future value of the \$20,000,000,000 of gold buried at Fort Knox. Probably gold will always be the world's monetary yardstick.

It is not only convenient but there is no substitute yardstick. But the barter plan the Germans use will be hard to buck.

He is able to foresee the possibility of government controlled trade over the world, in which the individual trader will have little voice. A period of enormous wants will follow the war and these wants must be satisfied. When we know what has happened, we may be able to decide more definitely what may happen next.

He does not talk like either an optimist or a pessimist. Not even like a prophet.

More like an economist.



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The Fairbanks-Morse foundry in Beloit, Wisconsin, makes castings for assembling at its plant in Three Rivers, Michigan—240 miles away. And the Three Rivers plant makes 5-ton frames that must be finished in Beloit. Material must move both ways . . . steadily and fast!

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Here's how it works: 1. Truck arrives at Three Rivers, pulling a 10-ton Trailer load of castings. Trailer is left for unloading. 2. Truck leaves immediately for Beloit with second Trailer, already loaded with two 5-ton frames. 3. At Beloit, truck uncouples Trailer, starts back immediately

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HAVE YOU realized how important highway transportation is in a successful national defense job? For example, one motor transport company in Nashville delivered nearly 4,000,000 pounds of material for the construction of Camp Forrest; now delivers more than 250,000 pounds monthly to the same camp; transports thousands of pounds daily between aluminum plants and airplane factories in the Nashville area, and handles many lesser assignments, too. • That's just one. Multiply its work by the thousands of operators in the United States, and you begin to get a picture of the tremendous national defense job being done by motor transport.

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Defense work may cancel some vacations, but developers of new civilian products are always on the job

1 • **ELECTRIC** plugs that are easily connected and eliminate chances of blown fuses from bare wires in the plug coming into contact are now made. The connection is made without stripping insulation by laying the wires on prongs which, when the top is screwed down, bite through the insulation to make contact. No screwdriver is necessary.

2 • **FOR** rugs that slip there is a specially woven fabric impregnated with a wax-like substance to prevent slipping. It contains no rubber, won't darken floors, is moth-proof, washable, odorless.

3 • A **SCREWDRIVER** is now made with a reversible blade of which one end is machined for slotted head screws, the other end for patented X-recessed head screws. The ends of the blades are easily reversed, and firmly held in place.

4 • A **SYNTHETIC** resin incorporated in cement is said to decrease markedly the surface scaling due to alternate freezing and thawing and accentuated by use of chemical compounds to remove ice. The resin is added at the mill and makes little difference in cost or strength.

5 • A **NEW** door holder is silent in operation, consists of a short plunger with bulbous end that fits into a socket with a soft rubber lining. Metal-to-metal contact is avoided.

6 • **VERTICAL** turbine pumps are now made with a slightly bulbous tip to the guide vanes which is said to decrease losses due to eddy currents and to increase efficiency by as much as 10 per cent.

7 • A **PHOTOELECTRIC** unit to detect smoke of too great density from industrial furnaces gives an audible or visible signal to firemen and, if desired, will provide automatic control by admitting steam or air over the fire.

8 • A **NEW** front wheel tire for tractors combines in one tread the easy steering, small-side-slip tread with the long-wearing rib-type tractor tire. It is made of long-life sun-resisting rubber.

9 • AN air hose weighing only 20 pounds for a hundred feet is available now for operating pneumatic riveters, chippers, and other tools. Strength has not been sacrificed in it. It not only conserves the workers' strength, but also has less tendency to throw the tools out of balance.

10 • **ANOTHER** hose of light weight has sufficient flexibility to bend to a radius of three inches without cutting off the air supply.

11 • A **RIVET** for use where one side is inaccessible is made with a shank loaded with explosive so that it is expanded when an electrically heated riveting iron is applied to the other end. These rivets save much time and offer a high safety factor. They are now made in aluminum alloy primarily for aircraft construction.

12 • AN automatic toaster is now made with silent timing. Adjustments are available for the color of toast desired and to have the toast pop up when finished or remain in the machine to keep warm. A baffle plate permits toasting either one or two slices.

13 • **INDUSTRIAL** tires are now made of a rubber compound which conducts electricity. For industrial trucks or tractors, it dissipates static electricity and is expected to be of special value in plants working on explosive or inflammable materials.

14 • A **NEW** head for camera tripods is designed to tilt 100 degrees forward or 25 backward and to rotate a full 360 degrees. Both rotating and tilting movements are controlled and locked by a single handle. The tripod head is 2 1/4 inches square and is said to give good stability and solidity.

15 • A **POWDER** has been developed which is said to eliminate radio static interference and static shock from automobiles. A tablespoonful is blown into each tube where it remains in suspension like dust in air and neutralizes the static.

16 • **FOR** leaky spigots, of the compression type, there is a faucet seat which does away with washer and washer screw, is easily applied, and in use shuts off water even though the faucet is not fully closed.

17 • A **NEW** lamp bulb is made with the glass treated so that it filters out the rays ordinarily attractive to insects. The result is a soft, mellow light which, by comparison with ordinary light, seems repulsive to insects.

18 • A **NEW** clamp combines the deep throat of the standard clamp with the tremendous holding pressure of the toggle movement. It is equipped with two handles so that a squeeze of the hand applies the 2000 pounds pressure when putting it into position. The lower jaw swings clear of the work when released.

19 • A **POROUS** metal product has been developed which acts as a very fine filter to remove foreign materials from fluid or to diffuse gases. It is made of powdered metal and is available in a variety of shapes. It can be bonded to steel or copper to form an integral part with solid metal that may be machined for individual requirements.

20 • AN **AUTOMATIC** locking device for sash windows fastens securely when the window is closed, is easily opened by pressing two catch levers together.

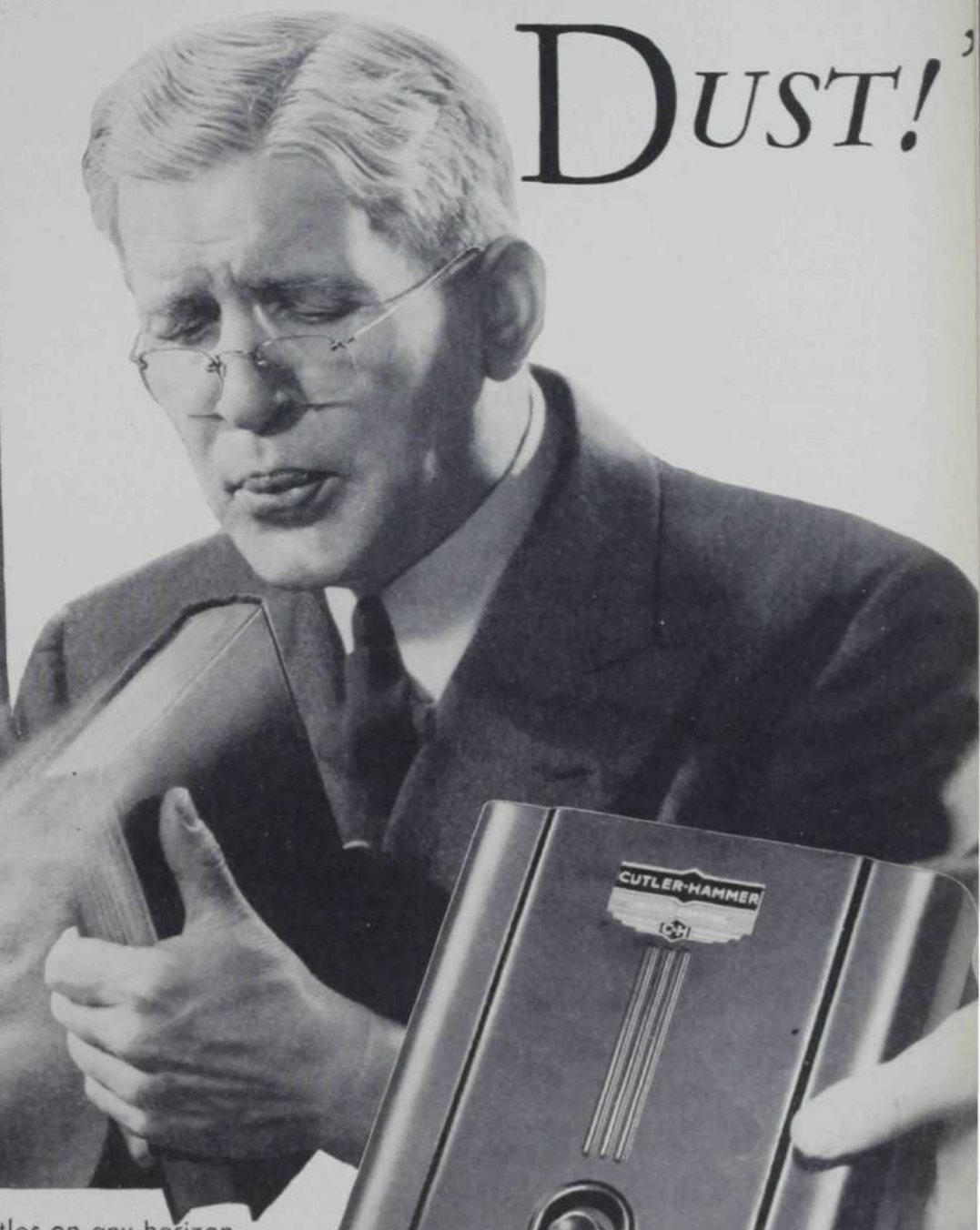
—W. L. HAMMER



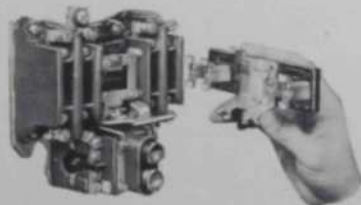
21 • A **POCKET** flashlight of simplified type is now made of plastics. It is almost as small as a battery case alone and correspondingly convenient.

EDITOR'S NOTE—This material is gathered from the many sources to which NATION'S BUSINESS has access and from the flow of business news into our offices in Washington. Further information on any of these items can be had by writing us.

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IT'S amazing how much dust settles on any horizontal surface—even where cleaning is done on a regular routine. If you get dust like that in a home, think of the amount of dust that collects on horizontal surfaces in a factory. That can be a problem in Motor Control—for dusty, dirty contacts always mean trouble. So save yourself trouble by specifying Cutler-Hammer Motor Control, the Motor Control with VERTICAL contacts that can't collect dust, that stay clean, work better, last longer. Accept no substitutes. CUTLER-HAMMER, Inc., Pioneer Electrical Manufacturers, 1251 St. Paul Ave., Milwaukee, Wis.



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A Girl with a Grip of Steel

(Continued from page 46)

underground cables. I thought you merely turned the switch and the light came on."

She adds that brother Edgar, whose only connection with the company today is to accept royalties, still invents or not as the whim strikes him and "no man knoweth the day or hour" when that will be.

However, she had \$1,000 of her own money and determination.

Armed with samples of the old type grip and her new one, Miss Kellems turned her blue-gray eyes in the direction of a local electrical utility company. She told the secretary that she wanted to see the "head man." She saw him, demonstrated the advantages of her grip and strode away with an order. Various other "head men" in affiliated companies were visited. Each placed an order with Miss Kellems.

Having the orders, it became necessary to have a factory to fill them. Her college training had taught that many embryo businesses folded up because of too heavy overhead expense. So she set up a small shop in a loft rented for \$50 a month. She needed little machinery since her product could be—and still is—made largely by hand. The first year her company grossed \$40,000.

A factory on Park Avenue

TODAY, her factory is at 1911 Park Avenue, New York City.

"A swanky-sounding address," she apologizes, "but it's really up in Harlem." She lives and owns nine acres of land in Westport, Conn., where she has a small shop and plans to build a factory which won't look like a factory and will have "an extremely feminine office."

She will spend a lot of time in that office. Detail and routine bore her but she occasionally finds play for her good humor and imagination by writing an advertisement—a part of one of her efforts in this field is used as the lead on this article.

"Perhaps if I thought about it," she says, "I would prefer selling which consists of calls on and conversations with engineers. New ideas and applications intrigue me."

Apparently she does not need to talk to engineers and technicians to find new ideas and applications. She finds them everywhere.

When the Chrysler Building was going up in New York, she went to the contractor and offered her cable grips free to prove that they would speed up the job of pulling wire through the walls. Such grips had never been used for this type of work. Result, a new market.

Her grips have also been used on most construction projects and in oil fields. She helped pull the cables for the underground electrical systems of Shanghai and Barcelona, the giant aluminum and steel cables for the English "Grid," which distributes current to all England.

The largest grip she ever made was 18 inches in diameter and broke under a stress of 200,000 pounds. Contrasting with this monster are considerably smaller sizes which hospitals began to buy in quantities several years ago. They are being used to hold broken arm and finger bones in place, to straighten toes and reduce bunions.

Meanwhile the company is doing its bit for defense, helping both the United States and British Navies in ways that are guarded as military secrets. One exciting possibility is not a secret. That is the grip's use for pulling up time bombs imbedded in the ground.

"You remember the bomb that fell near St. Paul's Cathedral and how a suicide squad dug for hours, finally hauling it away before it exploded? If they had had one of my grips, they could have fitted it over the end of the bomb and pulled it out in 15 minutes. This device would also be invaluable in lifting and carrying shells."

Keeping track of all these developments might be expected to take the full time of a woman who is five feet two and weighs 115 pounds. Not Miss Kellems.

"I'm likely to work hard for a while and then do absolutely nothing."

In spite of these periods of doing "absolutely nothing," the New York Soroptimists and the National Association of Manufacturers both chose her as the "leading woman in industry for 1940." She is one of the three women who are members of the American Institute of Electrical Engineers—the others are Miss Edith Clarke, power transmission engineer for the General Electric Company in Schenectady; and Mrs. Mable Rockwell, electrical engineer with the Lockheed Aviation Company, Burbank, Calif.

Such honors rest lightly on her trim shoulders. Speaking of the Institute membership, she laughs:

"Candor compels the admission that I came in by the back door. My friends got so tired having me hang around that they made me a member of the Institute to get rid of me."

Nor has her success in a man's field decreased her femininity, as witness her selection by the Fashion Academy as one of the 13 best-dressed women in public life. That honor she accepts as casually as the others.

Incidentally, "most of my clothes and hats are usually apart as I always have ideas for making them fit better. I love to sew."

She also likes to collect old clocks, "when they are available and I can afford them," and to work in the rock garden which she is building at her home in Connecticut. Four cocker spaniels, imported from England, help supervise this job.

"I swim, ride, bicycle and skate—all very poorly."

All these hobbies she abandoned in the last election to campaign for Wen-

dell Willkie with such energy that one newspaper dubbed her the "Lady Whirlwind."

She is an able—one reporter says "electrifying"—speaker and does a great deal of it although she dislikes accepting a fee because "I like to say what I please."

What she pleases to say is that most laws governing working women are "utterly ridiculous and idiotic."

"Even in the United States where they have more advantages than any other place on the globe, women are still denied equal rights."

She goes on:

"I agree that woman's place is in the home. I have a nice home and I love it. But is there any reason why a woman isn't a woman because she is in business? Business men have homes and love them, don't they?"

For women seeking careers

SHE believes that electricity, the field she knows best, not only has a place but an absolute need for women.

"Fourteen years of close association with utility companies and their industrial affiliates has taught me that there are today only two women executives in the entire industry. This is odd when one considers that approximately 85 per cent of the customers of electrical products are women."

As proof of the industry's need for a feminine viewpoint, she asks:

"Do you know that electrical kitchenware, excellent as it is, is designed by men who never fried a pork chop or washed a dish in their lives?"

When she designed the kitchen and laundry in her own home, Miss Kellems went, not to the men who had been doing the job, but to her cook. Between them they worked out innovations like using an adaptation of the Kellems grip as a broom hanger, kitchen tables of proper height with space below for the worker's knees.

She believes the cabinet work of the electrical industry "opens a wide field in design for women who know from experience what an efficient kitchen needs."

Furthermore:

"The electrical industry is going to open its doors to women, if I can do anything about it."

While that statement does not make increased employment of women a foregone conclusion, those who know Miss Kellems regard it as indicating a trend in that direction. If she thinks it is right and can swing it, she will.

A firm determination and strict sense of justice lurks under her good-nature as was demonstrated several years ago.

The first cable puller was patented by a man named George Wood about 25 years ago. When he died, he left his plant at Skaneateles, N. Y., to his widow, though his patent rights had expired.

"When I saw what my grip might do to that widow who, I found, was a lovable person, I bought her out, paid \$35,000 for her factory and scrapped it."

"My friends told me that I was a fool."

"But you know how women are."



Checking Account with the POST OFFICE?

Certainly! Thousands of firms have one! . . . First, you need a Postage Meter. Take the portable Meter down to the postoffice. Buy any amount of postage you like from \$1 up . . . Instead of handing you loose stamps, the postoffice man merely sets your Meter! The visible counters show your postage credit, postage expended. The Meter can hold any amount of postage, cuts down trips to the postoffice. And the postage in the Meter is safe as money in the bank!



Back in your office, replace the Meter in the Pitney-Bowes mailing machine. It provides any kind of postage for any kind of mail . . . prints a meter stamp, postmark and your own advertisement directly on the envelope, seals the flap at the same time—fast!

The Meter stamp is your check, cancelled when printed. The meter number is your signature, exclusive with your firm . . . And Metered

mail needs less handling in the postoffice, can often make earlier trains—and earlier delivery!

The Pitney-Bowes Postage Meter gives the convenience and protection of a checking account, saves time, effort and postage. There's a model for every business, large or small; takes little space, can be operated by anybody, costs a lot less than you think . . . Ask our nearest office how to open a postoffice checking account . . . or use the coupon—soon!

... Pitney-Bowes Postage Meter Co.,
1331 Pacific St., Stamford, Conn. . . . Branches in
principal cities. Cf. phone directory. In Canada:
Canadian Postage Meters & Machines Co., Ltd.

The Pitney-Bowes POSTAGE METER



Pitney-Bowes Postage Meter Co.
1331 Pacific St., Stamford, Conn.

☐ Mail me "Common Mistakes in Mail Handling"
☐ When may we have a demonstration?

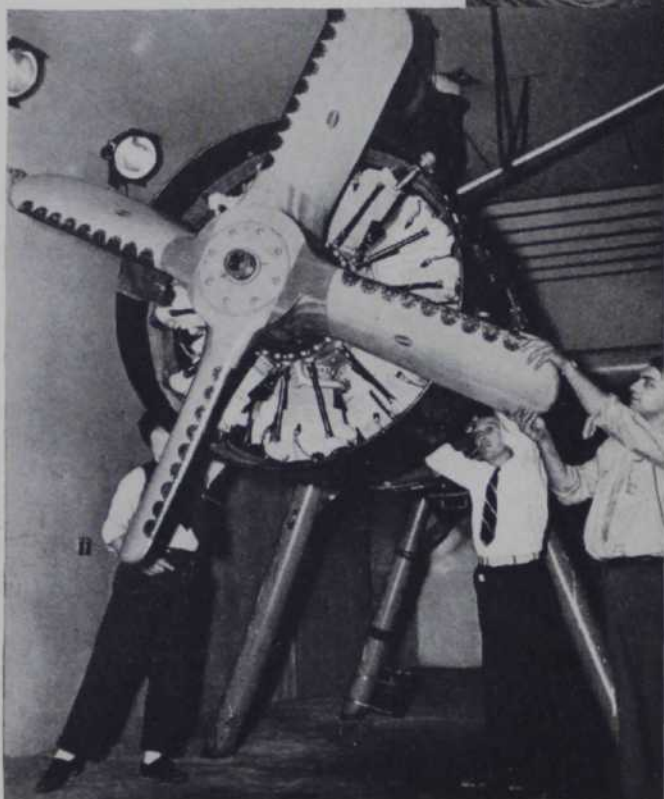
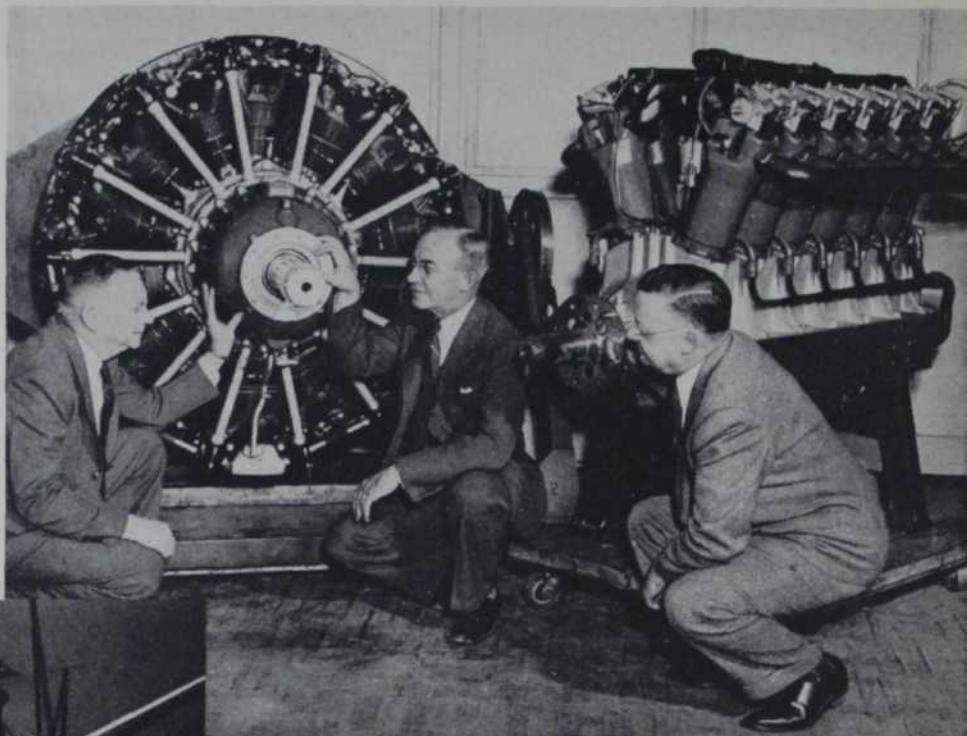
Name

Company

Address

Old Liberty (right) and new Pratt-Whitney engines. These experts who built them 23 years ago now head Buick airplane engine division

Below: First of the Cyclone 14 engines from Wright's new Cincinnati plant is examined by test engineers



The Heart of a Fighter's Power

12,000 tactical motors per month late in 1942. The present rate of manufacture requires 2.2 engines per plane, but the new program of four-engine bomber construction will increase the need to 2.6 motors. The English also insist on maintaining about 25 per cent spares. At least 600 engines of the present production are going to England each month for use in bombing planes.

The Pratt & Whitney and Wright motors are 14-cylinder twin row type, radial and air cooled. They can be used in either fighters or bombers. The Allison 12-cylinder motor, made by General Motors in Indianapolis, is at present only 1,320 horsepower, but has less frontal surface and thought to require less power to achieve the same efficiency as radial motors. Plans are under way to make it a 24-cylinder motor built in an X type rather than the present V type. Allison motors are used only in fighter planes.

The automobile companies which have taken airplane motor contracts are rapidly approaching the production stage. Buick, Chevrolet, and Ford will build Pratt & Whitney engines and Studebaker is starting on 2,000 h.p. Wrights.

Packard is building 9,000 Rolls Royce liquid cooled engines for interceptor planes. Their anticipated delivery date was delayed when it was found that only five per cent of their personnel could be put to work on the new engine without retraining and only a minute percentage of their machines could be used for airplane motors.

There is of course continual experimentation, not only to increase the power of motors, but also with new types of engines. Ford is approaching actual construction of a 1,500 h.p. liquid cooled in-line engine that will weigh less than one pound per horsepower, while most others weigh about 1.1 pound. The Chrysler Corp. is also experimenting with an airplane motor of its own design and Lycoming is developing a pancake or long, flat motor for tactical planes. Diesels, too, are going through an experimental stage and in Germany have been successfully adapted for transport planes, although there is no indication as yet that they have been widely used for bomber or fighter installations.

The old Liberty motor, shown at top right, was generally recognized as America's greatest mechanical contribution to the World War. The Liberty was a 12-cylinder V-type liquid cooled engine that developed 422 horsepower and weighed two pounds per horsepower.

During the four and a half months from July to November, 1918, manufacturers turned out over 17,000 airplane engines of all types, including trainers, but the average horsepower was only 270.

During June of 1941, American industry produced approximately 3,500 engines for tactical (combat) planes, in addition to trainers. These were divided approximately between Pratt & Whitney, 1,300; Wright, 1,700; Allison, 500. Horsepower of each was more than 1,000, some going as high as 2,000.

The new Wright factory, near Cincinnati, biggest airplane engine plant in the world, with enough floor space to accommodate eight baseball games, a football game and 30,000 spectators simultaneously, will, at capacity, build engines with a total h.p. of 2,000,000 a month in comparison to the company's present total of 1,780,000 h.p.

It is expected that when the automobile companies get into production with their engines, the output will reach

"Debt" is Again a Bad Word

By FRED DE ARMOND

IF ONE may judge by reading the ads and business signs, the most seductive phrase in the American language is "No money down." When it is followed by "20 weeks to pay," or "30 months to pay," or "Five years to pay," and accompanied by an attractive display of anything from tires to fur coats, sales resistance folds its tent and steals away.

Much must be forgiven the exuberance of American selling, because its results have been impressive in terms of better living for everybody. But to say this is not to deny that some current variations of the time payment plan do shock the sensibilities of the thrifty. Arthur O. Dietz, president of Commercial Investment Trust Corporation, in a recent address before the National Automobile Dealers Association, adduced this example from an auto dealer's offer:

We will allow a minimum of \$99 for your old car, regardless of its condition, accept it as full down payment on a new or used car and give you five years to pay the balance. If the value of your old car is more than \$99 we will pay you the difference in cash.

These are the words of another ad cited by Mr. Dietz:

Have you ever had a repossession? If you have—and are worrying how you are going to buy—your worries are over; because *Blank Motor Company* will get your deal through.

Many items of durable consumer goods merchandise may now be bought on a one-per-cent-down basis. "No payments till March" (three months after purchase) is the attractive bait held out to possible buyers of a household appliance.

"Do you have \$3 and a job?" a dealer proclaims as the only condition to driving away an automobile. The brevity of this message is reminiscent of a periodical ad of the 1892 vintage dug up by a *Printers' Ink* researcher:

Have you \$1 and have you piles? Send us your dollar and we'll cure your piles. Or keep your dollar and keep your piles.

Instalment credit now knows few limits in the variety of goods and ser-

Standard Terms for Time Sales Financing				
Recommended by the Consumer Credit Council, American Bankers Association.				
A. Transportation	DOWN-PAYMENT		TERMS (Number of Months)	
	New	Used	New	Used
1. Aircraft	33⅓%	40 %	12	12
2. Automobiles	33⅓%		18	
Used (not over 3 years)		33⅓%		18
Other Used		40 %		12
3. Bicycles	33⅓%		12	
4. Motorcycles	33⅓%	40 %	12	12
5. Pleasure Crafts (motor boats)	33⅓%		12	
6. Trailers (house)	33⅓%	40 %	12	12
B. Auto Accessories	10%		12	
C. Household Appliances				
1. Refrigerators	15%—minimum \$15		24	
2. Gas and Electric Stoves	15%—minimum \$15		24	
3. Stokers and Oil Burners	15%		24	
4. Air-Conditioning	15%		24	
5. Washing Machines	20%—minimum \$10		12	
6. Ironers	20%—minimum \$10		12	
7. Sweepers	20%—minimum \$10		12	
8. Sewing Machines	20%—minimum \$10		12	
9. Other Electric Appliances	20%—minimum \$10		12	
D. Household Equipment and Furniture				
1. Radios	20%—minimum \$10		12	
2. Phonographs	20%		12	
3. Pianos	20%		24	
4. Furniture	20%		15	

vices it will bring to the consumer. Even Macy's big store in New York, one of the last citadels of the cash basis, adopted some time ago a limited deferred payment plan for its customers.

One of the big airlines advertises in an eastern city tickets to Los Angeles at \$13.64 a month. Railroad tickets have been sold on "budget plans" for

several years. Cash may be borrowed from personal lending agencies for Christmas buying, for a vacation journey, to pay for auto license tags, or taxes, or a new baby, or to refinance merchandise instalment debts that have overwhelmed the debtor.

Just now these cases and other considerations connected with instalment credit are in the limelight as they have

never been before. Yes, you've guessed the reason: *c'est la guerre*. Everything out of the ordinary these days is related in some way to the war.

The high command at General Economic Headquarters is canvassing ways to divert industrial production from butter to guns. Its strategists are playing with all sorts of theories, one of which is that consumer buying may be slowed down by restricting credit. The quickest way to achieve that end is thought to be to curtail instalment credit at the source, probably by having the Federal Reserve Board prescribe stricter terms in instalment paper rediscounted by banks.

To help hold down prices

THIS, it is argued, not only would contract the volume of consumer purchasing, hence indirectly consumer goods production, but it would at the same time put a brake on the present movement of prices upward, and in that way help to avert inflation. True, prices of consumer goods have so far shown only a small aggregate rise, but these economists anticipate a slow but resistless upward trend ahead, a belief strengthened no doubt by the assumption that no ceiling is to be placed on the controlling factor of wages.

"Increase consumer purchasing power," the gospel of John Maynard Keynes, has been the slogan of our economic planners for more than ten years. Now a complete about-face is recommended; purchasing power must be decreased, is the new formula. "Saving is unsocial, debt is salubrious"—these reform canards are abandoned abruptly. Now we are told the people must be taught to save so that they may buy defense bonds. Thrift again becomes a good word and the economic semantics lexicon must be revised.

In a report written for the War Department a year ago at the beginning of the national armament program, Rolfe Nugent, director of the Russell Sage Foundation's consumer studies, deplored the rise of consumer debt to \$9,000,000,000, a billion higher than 1929. He estimated the rate of expansion at \$500,000,000 a year and suggested that, by pulling the proper wires, a contraction of \$3,000,000,000 instead of a \$500,000,000 rise could be effected. This was supplemented recently through a study made for the Federal Reserve Board by a group of economists headed by Dr. Carl Parry. The Parry pronouncement seems to confirm Nugent's report that curtailment of instalment sales is the way to cause the nation to tighten up its belt and concentrate on military and naval production.

The government economists made no public confession that the standard of living would be depressed to the degree of such contraction. Yet, if effective, it would be felt most by those for whom the Administration has professed its chief solicitude—the income groups earning less than \$2,000 a year, who are the largest users of instalment credit.

Evidence of the cross purposes at which the Government's top thinkers are working is indicated in a recent statement made by Assistant Attorney Gen-

eral Thurman Arnold. In the course of a radio broadcast at Denver he said:

This country of ours does not need to pull in its belt. What it needs is to get going. It needs to get started right now turning out all its available manpower into the goods and services for defense, goods and services for living like Americans . . . to produce the large supplies of consumer goods that are absolutely necessary if we are to have defense on the home front as well.

In this move to control instalment credit an older motive than stimulation of armament production or the correction of credit abuses is revealed. An influential school of planned economists has long looked with suspicion on instalment credit as a wicked device of big business to separate the unwary proletarian from his cash. The Lynds sneered at it in "Middletown" as "telescoping the future into the present." Jesse Rainsford Sprague wrote a thesis designed to prove that it raised the price of all merchandise. Instalment selling was depicted as synonymous with "the new model racket." This negative position has been taken by many of those who think that a man or woman with a dollar to spend must be protected from greedy merchants luring victims into their stores on the "dollar down and dollar a week forever" plea.

During the '20's many prophets predicted black ruin for those holding the instalment paper bag. Even the Executive Council of the American Bankers Association is said to have buried a favorable report on instalment financing drafted for the association by Milan V. Ayres in 1926. Later the bankers were to find that loans made to sales finance companies were among the safest investments for their depositors' funds. When the depression came, it was not the sales finance houses that went down. At the end of 1941, according to a Federal Reserve System report, 11,551 commercial banks in the United States had made personal instalment cash loans totalling an outstanding obligation of \$417,000,000. They consider this business desirable.

An aid to better living

PRACTICAL business men today pretty generally recognize that instalment selling has contributed materially to better living. It has enabled the consumer to buy new merchandise while it was up to date, thus keeping step with technological advance. Convinced that a new refrigerator, for instance, was both a convenience and an economy, he could have it at once, if he had a regular income, and enjoy its advantages during the 18 months or so that would have been required to save the money to buy it for cash. The same system has helped to expand the domestic market for a variety of goods that once were in the category of luxuries. We have come to regard it as the twin of mass production.

There is nothing new about the theory that economic cycles might be mitigated by manipulating credit. Basically, that is one of the purposes for which the Federal Reserve System was organized. It was thought also that, by tightening up on time sales of merchandise in good times, a boom could be restrained, while more

liberal terms would help to cushion the dip in bad times.

Competition tends automatically to provide this stabilizer. In good times, when everybody is buying freely and business is not too hard to get, larger down payments may be obtained and the deferred payment period shortened. In hard times, on the other hand, when income is reduced and the burden of commitments already made by consumers tends to restrict further current purchases, the pressure of competition liberalizes credit terms with no prompting by government controls.

Of course, all realists know that competition is a give-and-take among all sorts of people engaged in the grim struggle for survival. In the course of the process through which only the hardest enterprises rise to the top, inevitable abuses of instalment selling arise, such as those enumerated at the beginning of this article. They parallel closely the ways in which advertising is prostituted by an unrepresentative minority.

The evil is credit abuse

THE evil in the absurd credit lures cited does not justify the conclusion that instalment selling itself is an evil. It does mean that, in some instances, terms rather than merchandise and service and prices have been made the competitive nub. Firms are competing in selling credit terms instead of goods.

Business is keenly conscious of these abuses as it nearly always is of malpractices that grow up within its ranks. It is acting voluntarily to correct them, not through social manipulation of the whole economic machine but in line with sound business procedure, which in the end is pretty certain to be good for consumers. The guiding principle has long been that the down payment should be large enough to establish an interest or equity in the merchandise and the monthly instalments large enough to increase that equity faster than the goods will depreciate from time and average use. It is common knowledge that this principle is being violated by certain overly eager competitors.

Recently the two big mail order leaders have reduced from three years to two years the maximum instalment period on refrigerators, washers, stoves and similar appliances sold in their stores. Department stores are tightening up on their terms.

After extended study of the question, the Consumer Credit Council of the American Bankers Association has recommended to all commercial banks a schedule of minimum down payments and maximum maturities on loans made for the purchase of goods. (See accompanying table.) If commercial banks, as one of the original sources of capital for the sales finance companies, adopt these standards, it is believed the other lending agencies will do so, likewise the vendors of goods. If so, they "will put instalment lending on consumer goods on a sound basis," says Kenton R. Cravens, Cleveland banker and chairman of the Council. Mr. Cravens disclaims any intention by the association to compel adoption by

PHOTOMYSTERY

See How Good a Detective You Are!

Try to Solve This
Short-Short Mystery



Mr. Oto, the famous detective, wasn't prepared for the deep atmosphere of gloom that greeted him when he dropped in the S & R agency to call on his old friend, Russ Powers—A. E. of the Rol-Wite account.



"What's the matter, Russ, old boy?" asked Mr. Oto. "You look like a man whose wife has just gone thence with the handy man." "No such luck," growled Powers, "I have client trouble!"



"Look," he continued, quickly swallowing a handful of aspirin, "We've been running a newspaper campaign in twelve big markets for 26 weeks. In some spots sales are up; but in others . . ."—he shivered, as though a cold wind had swept into the room



Mr. Oto smiled. "So, your client naturally thinks there's something wrong with the advertising. Russ, my boy, my sixth sense tells me your campaign is suffering from R. O. P." "Stop gibbering," cried Powers, "Wha'd'ya mean—suffering from R. O. P.?"



"Just this," said the detective. "Average reader traffic varies tremendously from one section of a paper to another. So, when you release an ad with a run-of-the-paper contract, it's anybody's guess how many readers are going to see it."



"If you think you're making me any happier, you're crazy," said Russ Powers . . . "That may explain why the same ad produces different results in different localities—but what's the solution?" "Remarkably easy, my harassed friend," replied Detective Oto, "You should . . ."

(See if you can decide before turning the page what Russ Powers should recommend to his client to guarantee all his ads high visibility)

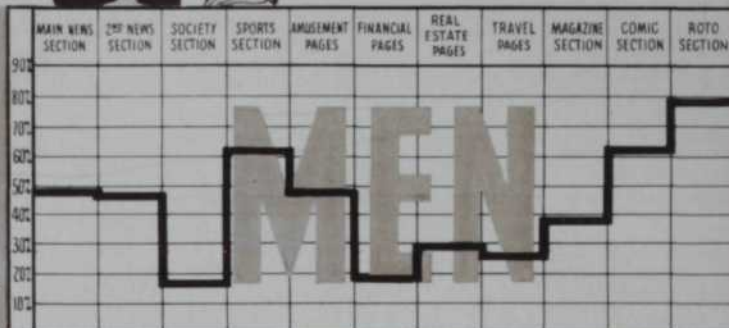


"Count the Readers Per Dollar
Instead of the Lines Per Dollar,"
says Mr. OTO,



...**"Then You'll
Go ROTO, too!"**

*"And this Gallup Method Survey proves my point!
These charts show the average reader traffic for
each section of the Sunday newspapers surveyed."*



"Position is everything in life," said Mr. Oto.
"And notice that every ad gets 'preferred position' in roto. Every page is filled with editorial content that brings readers closer to the ads."



"Check," beamed Powers... "And roto gravure leaves nothing to be desired for faithful, clean reproduction... lends quality to the product illustrations. That's important, too!"



"Russ," beamed Mr. Oto, "go face your client with a happy smile and a hot idea... put his advertising in roto! First, however, you may have the pleasure of buying my lunch."

Why Not Let ROTO Solve the Problem?

Rotoplate
REG. U. S. & CAN. PAT. OFF.

—THE NATIONALLY-ACCEPTED ROTOGRAVURE PAPER

Manufactured by KIMBERLY-CLARK CORPORATION, NEENAH, WISCONSIN

Established 1872

NEW YORK, 122 E. 42nd STREET • CHICAGO, 8 S. MICHIGAN AVENUE • LOS ANGELES, 510 W. SIXTH STREET

member banks. But the A.B.A.'s influence in the world of private finance is well known and doubtless will be effective.

Even with slack terms, the losses on instalment contracts have always been low. John T. Flynn is authority for the statement that automobile dealer losses are less than one-half per cent, and those of jewelers—among the highest of all—5.4 per cent. Automobiles account for about half of all instalment financing.

In the hope of averting a further laying-on of hands by Government, joint action has been taken toward voluntary control of all credit terms by three large organizations: National Retail Credit Association, Associated Credit Bureaus of America, and Credit Women's Breakfast Clubs of North America. Out of their efforts, supported by some of the larger retail bodies, a voluntary credit code is expected to be evolved.

Time sales grow slowly

ITS critics leave the impression that time selling is growing at such a headlong pace as to constitute a threat to something or somebody. But the facts do not bear out this impression. In 1929 retail instalment sales totalled \$6,400,000, or 13.2 per cent of all retail sales. In 1940 the total was roughly \$5,000,000,000, or 10.4 per cent. In this entire period, through good and bad times, instalment business varied much the same as general business.

It is not true that consumers are "loaded" with goods disproportionately in hard times. It is true that what they buy in good times they pay for with surprising fidelity when bad times come.

Consumer debt arising from sales of the five principal retail instalment lines—dealers in new and used cars, department stores, furniture, household appliance and jewelry stores—reached an all-time peak at the close of 1940 when outstandings totalled \$2,865,000,000, a figure almost ten per cent above the previous high reached in September, 1937, and 50 per cent above the low reached in February, 1939, after a violent drop in instalment sales during the preceding year.

These conclusions appear in the text of a speech by Duncan McC. Holthausen of the Department of Commerce, who has made a statistical study of the subject.

They are largely explained, it would seem, by the additional fact that 1937 was another 1929; it just preceded the latest depression which made 1938 a low year. While instalment debt was increasing in these three years by ten per cent, all retail sales increased 14 per cent. National income likewise was rising. And public debt is increasing at such a rate that instalment debt presents relatively a very minor cause for alarm, since it is less than two per cent of the grand total of all debt, public and private.

A different situation exists when we come to consider consumer cash loans repaid by instalments. They are showing a steady rise that outstrips the growth of retail sales. Mr. Holthausen's figures

show a total outstanding of \$1,842,000,000 at the close of 1940—an increase of 70 per cent over 1938 and 4½ times as great as 1934. But note the cause, as Mr. Holthausen explains it:

The rapid rise in consumer loan balances may be attributed to the growth in volume of commercial bank, credit union and F.H.A. Title 1 loans.

Two of these, the credit unions and the F.H.A. loans, are Government guaranteed or encouraged. To this explanation might be added the growth of the personal finance companies. Their outstanding loans at the end of 1940 were \$505,000,000, nearly double the 1929 figure.

The overemphasis on contraction of instalment selling as the way to bridle consumption is further evident when we consider that the sales of consumer goods on open account is at least twice as great as on instalment contracts. It has been suggested in Washington that government control should be extended to the denial of recourse at law in collecting any charge account that has been permitted to run past the twentieth of the month in which it is due. But even with that extra credit rein, there would still remain a vast leak of purchasing power through mortgage loans for home purchases.

Driven to the loan sharks?

IN ITS current report on "Proposed Restrictions Affecting Retail Instalment Credit" the Domestic Distribution Department Committee of the National Chamber suggests that the measures proposed for federal control would tend to drive consumers with low incomes to find other means of financing their purchases of durable goods. They would have recourse to the various agencies that to an increasing degree are making small loans to consumers, with and without collateral. If pressed, these buyers with wants but no ready cash would even turn to other money lenders in the loan shark class. To the extent, then, that consumers finance their purchases through other means than instalment contracts, control measures would fail to attain the desired objectives, reasons the Committee.

The Chamber Committee says further:

If current proposals to apply controls to instalment credit have their origin in a desire to prevent expansion of consumer credit it is apparent that instalment credit is, in volume and variety, but a small part of total consumer credit.

If consumers are to be "protected" through the Federal Reserve Board or Price Generalissimo Henderson's office from buying too much, business wonders why the Government doesn't set an example of belt tightening by taking its own medicine. Speaking with special reference to the F.H.A. program, Leopold L. Meyer, Houston credit man, recently said before the credit sales forum in New York:

The Government is now devising ways to curtail the functioning of the very credit system which it itself fostered and to which the public has become educated.

F.H.A. guarantees loans for home modernization with no down payment at all. Lately Representative Steagall of Alabama has introduced a bill, presumably Administration approved, to increase the maximum amount from \$2,500 to \$5,000 and the time from three to five years. Washington's credit manipulation theorists are said to feel that this form of credit expansion is socially desirable and vital to defense.

Government finances sales, too

ELECTRIC Home and Farm Authority, a subsidiary likewise in direct competition with private business, finances the sale on instalments of a line of electrical appliances including refrigerators, ranges, dishwashers, waste disposal units, space heaters, water heaters, small self-contained room coolers, washing machines, ironers, clothes dryers, roasters, food mixers, portable lamps, vacuum cleaners, radios, conversion oil burners, stokers, water pumps, stationary and portable motors for home and farm use, and attic ventilating fans. Until recently E.H.F.A. terms permitted down payments as low as five and ten per cent and maturities up to 48 months. Initial payments are now set at ten to 15 per cent and maximum maturities at 36 months on combination sales and 12 to 30 months on single articles.

These are still freer terms than may be obtained from most private dealers who do not have available the facilities for discounting their instalment contracts through E.H.F.A. They are also considerably easier than the A.B.A.'s standard recommendations.

Business has shown itself ready to do anything within reason toward hastening the effort to put the nation in fighting trim. If approached with requests for voluntary action it is receptive, but its hackles rise at threats to obtain every desired effect by compulsion.

Priorities may be better

THERE is a strongly supported opinion in business circles that these manipulations of the whole economy, if attempted at all, should be done through the direct exercise of priorities rather than by applying additional controls over distribution. Even in the matter of limiting production, force is not necessary. The manufacturers of durable goods have indicated a complete willingness to curtail voluntarily.

In summary, then:

1. Instalment selling is in some rather conspicuous instances being abused by retailers who use it as a weapon of competition.

2. Business is well aware of these abuses and is taking steps to correct them voluntarily.

3. The general policy of instalment selling is sound and the volume of credit so extended not excessive.

4. Instalment cash loans and outstandings are rising in volume out of proportion to the barometer of retail sales but are still not of major importance in the consumer debt picture, compared with home mortgage obligations.

5. Curtailment by government controls as a measure of the war economy would be ineffective and abortive.



FRIDEN Automatic Calculators

**ACCURATE
FIGURES**

in a hurry

...are an important
factor in all defense
plans and operations.

★ ★ ★

The Friden Super-matic Tabulating Model "ST-10" provides figures RAPIDLY and ACCURATELY. Try these amazing Calculators on your own work.

★ ★ ★

Friden Automatic Calculators are Sold and Serviced by a Factory trained personnel in over 250 Company controlled Sales Agencies throughout the United States and Canada.

FRIDEN
CALCULATING MACHINE CO. INC.
FACTORY AND HOME OFFICE
SAN LEANDRO, CALIFORNIA

"Working the Sticks" Does Pay

(Continued from page 36)

that the small town buyer—this applies particularly to the rural market—does most of his buying from a mail order catalog. The two principal catalog-selling organizations do a combined annual mail order business of less than \$600,000,000. That is not large when compared with the total annual small town retail sales of \$13,000,000,000 but, if it proves anything, it shows that small town people do have money to spend.

A good many analysts fail to consider that, right now, there is less competition in the small town market than in any other. This will not be so true in ten years or even two years. And the business that gets there first with the best product, the most persuasive sales story is likely to be away out in front when the going gets a little tougher.

One highly important factor which is sometimes neglected even by those few organizations which are making a play for this market is that both the media and the advertising must be geared to people who live in small towns.

Everybody knows that, in recent years, the country cousin has been using more and more of the same goods that appeal to the city dweller. What they seem to forget is that he is now beginning to form his brand consciousness and to set up the permanent buying habits which are the dream of every sales and advertising executive. The aggressive business that wishes to introduce itself to this market would do well to start now before it becomes later than they think.

A lot of fuzzy cogitation has gone into developing the erroneous shibboleths about the small town market. For example sales and advertising executives have burned much midnight oil analyzing markets through the study of their factory shipment records. These records seem to indicate that sales are being made primarily in the big cities. This certainly can be true of *factory sales* because factories usually sell distributors. But a further breakdown of sales records would reveal that the wholesaler in turn often sells the smaller jobber, that the jobber sells the retailer who finally sells the consumer. The consumer, 52 per cent of him, at any rate, is found in small cities. A. C. Nielsen has investigated this question and the results of his analysis, expressed in exact, adding-machine English are:

Sales by City Sizes

City Size	Final	
	Factory Shipments	Consumer Sales
a. Over 1,000,000	41%	17%
b. 100,000 to 1,000,000	45%	23%
c. 10,000 to 100,000	10%	28%
d. Under 10,000	4%	32%

Obviously, the advertising executive looking over the figures in the last column should think a long time before spending 86 per cent of his budget in cities of more than 100,000, which his factory shipment figures indicate he might well do.

Nielsen, incidentally, has repeatedly

warned manufacturers that they are unscientific in their market analysis when they scorn the small town:

Manufacturers usually underestimate the buying capacity of small communities and rural areas. They look at their charts for a particular community and feel that the business is not worth going after. Most of their total volume is to be found in small communities and rural areas.

Nielsen might have added that there are media which deliver the bulk of their circulation in these important small town areas.

To anyone who takes the question of the small town market seriously, some statistics will have particular significance. Probably few people realize that 60 per cent of all Cadillac automobile dealers are in towns of less than 25,000. Cadillacs have not usually been considered a product which would appeal to the small town market.

There are numerous people who, in measuring prosperity, set great store by various statistical indices, notable among them retail sales. They should ponder this revealing fact:

During 1939 retail sales in small towns increased over 1938 anywhere from two per cent to 12 per cent more every month than retail sales in big cities. The monthly average for the year was seven per cent more than the large urban areas.

Another time-honored market gauge is based on the number of new dwelling units erected. When people build new houses they often buy large amounts of new and comparatively expensive equipment as well as furniture and minor fixings. In 1940, new dwelling units in communities under 10,000 were ahead of 1939 by some 22 per cent. In cities of 500,000 and more 1940 was behind 1939 by three per cent!

As this article goes to press, the index of sales of general merchandise in small towns is close to 150, the highest point in history. This does not compare with any measly 1926 average of 100. The comparison average of 100 is based on the former all-time high years of 1929-31.

Most manufacturers of industrial goods pay little attention to the small town market. Possibly they are not aware that some 40 per cent of all manufacturing establishments in the United States are in places of less than 25,000 population, and don't assume that this figure is as high as that only because it includes a lot of one and two man shops. The total cost of raw materials going through the factories in these communities is more than 38 per cent of the total cost of all United States raw materials, and the value of products sold is 37 per cent of the total. The number of wage earners is more than 40 per cent of the United States total.

The manufacturer of industrial goods should weigh those factors carefully when he plans his next sales and advertising campaign, and, if any proof is needed as to the aggressiveness of the small city business man, it probably can

be found in the fact that in these same communities are found 52 per cent of all the readers of NATION'S BUSINESS.

Once in a while, the objection will be raised that small town people don't read very much. Apparently the popular belief is that all they do is work and sleep. A survey of one small town newsstand reveals that it stocks 310 magazines and 27 out-of-town newspapers.

Sometimes business in small communities is conducted on a rather informal basis. For example, in one small city a man named Tony runs a restaurant and has a bicycle shop in connection—or he runs a bicycle shop and has a restaurant in connection with it. This combination is perhaps one of the most peculiar in the country, but nevertheless Tony has sold 1,000 bicycles in three years. That's good business, good for Tony and the manufacturers who sold him.

Although the small town has shown a splendid and healthy growth based on peace-time development, its business activity has been considerably accelerated by the defense program—a program which most people suppose affects mainly the large cities.

Major defense contracts in amounts of \$100,000 or more are constantly being awarded to plants in towns which are as unknown to the people who don't live in them as is Patagonia.

Small towns get big contracts

FOR example, an analysis of the contracts awarded in February shows that a town like Barnesboro, Penn., has received one contract for \$283,000. West Bend, Wis., landed one for \$163,000. In Charlestown, Ind., a new \$15,000,000 plant is being built, and Clevedale, S. C., basks in the inevitable prosperity which will follow the filling of an order for \$1,900,000.

That isn't the complete list but multiply even that by ten or 12 months of continuously active contract-letting and you get some idea of the volume of business that is pouring into Littletown.

That is not all. Many of the major defense contracts which have been awarded to corporations in big cities have been sublet to small town manufacturers.

There is one further effect. By June 1, in 33 of the great new army camps located near small towns, more than 600,000 trainees and their officers were drawing down monthly pay rolls exceeding \$20,000,000. That's big spending money. Army commissaries also make extensive purchases of food in local markets near the camps. Add that to the wages paid local labor for construction and continuous improvement and you have a newly created purchasing power in Littletown.

The important thing about this market, however, is not what it has accomplished through the stimulus of defense orders. If it were not for its steady development under peace-time conditions, there would be less reason for the business man to sit up nights thinking about it. But obviously the small town is going to be an increasingly important market regardless of war conditions.

There is gold in the pockets of the local boys, and if the business man doesn't get it, the Government will.



Keep 'em Rolling to Keep 'em Flying

● Many months ago all 22,000 of us on the Erie tightened up our belts and declared all-out for national defense. We ordered thousands of new cars, stepped up the modernization program which had long been under way.

Today, we are moving huge quantities of parts, machinery, and supplies to "keep 'em flying" as the new army slogan says. We are ever at the service of the military, of the government—and you, too, whether you ship airplane parts, fountain pens, or peanuts. Erie delivers the goods.

You can help to keep 'em rolling for defense by giving advance notice of car requirements, by loading and unloading promptly, by loading to the load limit, and many other ways that may speed shipments.

Let's all keep 'em rolling to keep 'em flying.

Carl Howe, Vice President

ERIE RAILROAD • CLEVELAND, OHIO



The Money Markets

By
Clifford B. Reeves

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

The Freezing of Foreign Balances

THE recent order from Washington "freezing" all American balances of European citizens, other than those of Great Britain and Ireland, was warmly welcomed in financial circles, where it was felt that this should have been done even sooner.

The purpose of the order, of course, was to make it impossible for the Axis Powers to use American balances of their own, or those of other aliens, to finance subversive activities or buy supplies in this country. The ruling tied up not only the accounts of European citizens, but also those of Americans living in Europe and of Americans acting as agents for European corporations and individuals.

Prior to the freezing order, the Axis Powers, either directly or indirectly, had large balances available for use in the United States. Ugly stories had been circulating for some time as to the way they were extorting additional funds from refugees and other aliens in this country by threatening harm to relatives and friends in German-occupied territory.

Many aliens, however, are known to have evaded the freezing order by liquidating securities and other American property in anticipation of the Government's action, and arranging for payment in actual currency, which they could keep in their personal possession.

In the past three years there has been a mysterious increase in currency circulation, which has jumped \$2,800,000,000, or 43 per cent. There is strong reason to believe that the delivery of currency to aliens in exchange for American property accounts for a considerable proportion of this total.

To catch as many of these evaders as possible, safe deposit companies co-operated by freezing the contents of safe deposit boxes known to be held by aliens. Moreover, the Federal Reserve Banks have always kept careful records of all large denomination bills issued, and those who present such bills to banking institutions in the future may be questioned if foreign ownership is suspected.

The freezing order, which tied up the accounts of several million aliens, caused great consternation and a good deal of hardship until licenses could be issued to allow withdrawals where justified.

But the need for a "money blockade" against the Axis was apparent, and a surprise move was the most effective way to achieve it.

Save to Pay Your Income Taxes

BY the time these words are read, Congress will be actively debating the biggest tax bill in the history of any country. It proposes to increase federal revenues by another 50 per cent next year. But the estimated revenue from the new bill will be about \$9,000,000,000 less than the Treasury's probable needs. The rest will have to be obtained by borrowing.

Because it is expected that Congress will lack the political courage to broaden the income tax base to include the many millions who now pay no income taxes at all, the long-suffering "middle class," which has moderate incomes, will take the greatest rap, along with the few fortunate ones who have really large incomes.

The tax rates, however they are finally adjusted, will be so stiff that the Treasury is afraid that people simply won't have the money to pay their income tax bills next March 15. So the Treasury has announced a plan for the sale of Tax Anticipation Notes that will give large and small taxpayers a method of accumulating the necessary funds for tax payments.

By buying these notes at regular intervals for one year, the taxpayer can build up a fund that will enable him to meet his taxes the next year. Since the notes bear interest, he slightly reduces the net cost of his taxes. The notes will be accepted at face value in payment of taxes.

The proposed Tax Anticipation Notes will be sold through all banks beginning shortly after August 1. There will be two kinds of notes: Series A, for small taxpayers, in denominations of \$25, \$50, and \$100, bearing interest at the annual rate of 1.92 per cent, with purchases by any individual limited to \$1,200 annually; and Series B notes, for corporations and large individual taxpayers. The Series B notes will be available in denominations of \$100, \$500, \$1,000, \$10,000 and \$100,000, and can be bought in unlimited amounts. They will yield .48 per cent annually, and can be used to pay excess profits taxes as well as corporate and individual income taxes.

The plan gives the taxpayer a dramatic reminder that his bill will be large, provides a way of saving so that he will not be caught with insufficient funds, and permits, in effect, a small discount on his taxes. The Treasury, on the other hand, obtains its tax revenues in advance through sale of the notes, and will probably collect a larger percentage of the total levy than would otherwise be possible.

Because the proceeds from the sale of notes will be turned over directly to the Treasury, the plan will tend to prevent a further inflation of bank deposits that might have resulted if millions of taxpayers had opened individual bank accounts to accumulate funds for tax payments. The plan will also help to reduce overspending by consumers and thus tends to prevent inflation of living costs.

New Companies Can't Get Funds

THERE have been many complaints in recent years about the difficulty of raising capital for new and unseasoned businesses. This is a serious deficiency, because venture capital is the sparkplug of the country's economy.

Unsatisfactory business conditions have been in part responsible for the unwillingness of investors to supply speculative capital. The Government's general discouragement of speculation of any sort has also played a part. And high income taxes have caused many wealthy individuals, who formerly financed new business ventures, to withdraw from that field.

Clear statistical proof of the inability of new and unseasoned com-



BUYING BUSINESS INSURANCE *differs from buying a car*

When you buy an automobile, you are probably well qualified to act as your own buyer. You drive the car, put it to logical tests, judge its performance by standards that are familiar and practical.

With insurance, it is a different story. Your fire policy, for instance, may not be put to the test for five years. Then, if you have a loss, it is suddenly subjected to a sharp and critical examination. Do its terms cover the particular loss you have sustained? Is it easy or difficult to get a prompt settlement for \$800,000—or only \$650,000? The answers to these and many other questions can make a lot of difference in your business—not only at the time of the loss, but for months or years thereafter.

If you want to know that your insurance contracts will stand up

under the test of a serious loss, have a competent brokerage organization represent you—when the contracts are first drawn. The broker is essentially a buyer—not a salesman. He serves you well in planning and negotiating your business insurance with trustworthy underwriters; he may save you many costly disappointments; he collects your claims. He is unbiased, independent and knows the business thoroughly in every phase. He is paid by a brokerage from the insurance company.

With almost a century of experience, Johnson & Higgins serve as insurance brokers to many substantial firms and corporations... If you are interested in a full discussion of insurance brokerage in terms of your own business, a Johnson & Higgins representative will gladly call at your request.

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LOS ANGELES

MONTREAL

VANCOUVER

WINNIPEG

panies to obtain new capital has now been provided in a recent report issued by the Research & Statistics Section of the S.E.C.'s Trading & Exchange Division.

The report shows that, from July, 1933, through the close of 1939, less than one-quarter of the securities of new or unseasoned companies registered under the Securities Act was successfully sold. Of about \$400,000,000 of such securities registered, less than \$100,000,000 were finally taken by investors.

Out of 849 issues of that type registered, only 138 were completely sold. In 249 cases, none could be sold at all; while in another 136 cases, less than ten per cent was sold.

The 497 new companies whose securities were registered succeeded in selling only 15.2 per cent of their issues. The remaining 260 going concerns sold only 39.9 per cent of the amount of securities registered.

The 757 companies classified as new or unseasoned sold only 20.9 per cent of the common stock they registered; 22.8 per cent of the preferred stocks; 30.6 per cent of the certificates of beneficial interest; and 57.4 per cent of the bonds.

Nearly all of the issues registered by new and unseasoned companies were for new capital purposes. This contrasts sharply with the situation

of large and well established corporations, most of whose security issues have been for refunding, rather than new capital purposes.

In short, the only companies that are seeking actual new capital in any substantial volume are unable to obtain it.

Competitive Bids Result in Snarl

WHEN people south of Fulton Street in New York refer to "U-50," they are not talking about a German submarine. They are referring to the S.E.C.'s new rule requiring competitive bidding for security issues of registered utility companies. Rule U-50 has been one of the principal topics of conversation in recent weeks.

The first test of the new competitive bidding method came in connection with the issuance by the New York Electric & Gas Corporation of \$35,393,000 of first mortgage bonds and 120,000 shares of \$100 par preferred stock, a total offering of more than \$47,000,000. This deal, which underwriters watched closely, was a complete fiasco.

Its failure, however, was not due to any inherent weakness in the competitive bidding rule, but was caused by various restrictions imposed by the S.E.C.

The terms of the sale precluded the placing of "package bids," that is, a single bid for both the bonds and the preferred stock on an "all or none" basis. Banking syndicates were required to submit separate bids on the two issues.

It was also specified that one issue would not be sold unless a satisfactory bid was obtained for the other. Further to complicate matters, a dividend rate of not more than five per cent was specified on the preferred stock, for which the company had to be given at least par value. At such a yield, investment bankers felt that the preferred stock was not attractive.

When the bids were opened, it was discovered to everyone's consternation that, although there were four bids for the first mortgage bonds, there were no bids whatever for the preferred stock!

There was a difference of only nine-tenths of a point between the best and the poorest bid for the bond issue; and the high bid was submitted by the Equitable Life Assurance Society, which was seeking the bonds for its own investment. Although the latter's bid was entirely satisfactory, the bond issue could not be awarded, because the terms of the sale required that the two issues be sold simultaneously.

To extricate itself from this mess, the S.E.C. a few days later issued a ruling exempting the New York State Electric & Gas bond issue from the competitive bidding rule, and the issue was sold to Equitable Life at the price it had originally bid. New competitive bids were then requested on the preferred stock issue under more realistic terms than were first imposed, and the issue was finally sold successfully.

Investment bankers were somewhat alarmed by the prompt entrance of a large insurance company into the competitive bidding field. Insurance companies, bidding for their own account, obviously have an advantage over banking syndicates whose bids must take into account the need for resale to investors at a profit.

The first test of the new competitive bidding procedure also brought to light some serious questions in connection with the legal aspects of the deal. In other fields where competitive bidding has been common practice, such as municipals and railway equipment trusts, the terms of issue are virtually standardized. But corporation issues vary widely in their terms, and a great deal of original legal work is required if investors are to be properly protected by the indentures and other documents that secure their investments.

It has always been customary for

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for Democracies
in the War for
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times faster speeds than high speed steel, and often combining roughing and finishing operations in one cut.

Under average conditions, KENNAMETAL will increase the production of your lathes, turret lathes, and boring mills from 30 to 50%—and may even double their production. If your factory is not familiar with this revolutionary tool material, send for complete information today. Or if you are financially interested in plants where steel parts are machined, make sure they know about KENNAMETAL.



Turning 90-mm. shells with KENNAMETAL tools at 325 ft. per min. Tools are used eight hours without resharpening.

IN the United States, in England, in Canada, in Australia—private plants and government arsenals are racing against time to produce arms fast enough to turn back the aggressors.

In these plants, devoted to the preservation of Democracy, you will find KENNAMETAL steel-cutting carbide tools used extensively in machining steel parts for fire arms, cannon, airplanes, tanks, battleships, and other armament. For KENNAMETAL machines steel of exceptionally high hardnesses—at two to six



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one law firm to represent the issuing corporation, and for another law firm to represent the banking syndicate that was negotiating for the issue. The lawyers for the bankers who were to sell the issue made sure that their clients, and in turn their clients' clients, were well protected.

Under competitive bidding, however, all legal work is done by lawyers for the issuing corporation, who finally turn the legal documents over to the winning bankers and receive their payment from them. This raises a serious question as to whether the rights of investors will always be properly considered in the drafting of such documents.

In the case of the first test of competitive bidding, the S.E.C. countenanced this one-sided legal procedure, but warned that its action in this case was not intended to set a general precedent.

Further Cut Likely By Savings Banks

SAVINGS bank depositors seem likely to suffer a further reduction in interest rates.

The earning power of a savings account has been reduced by 50 per cent in the past decade, because of the declining yields on bank investments.

In New York State, two per cent is now the maximum rate that the Banking Department will allow a savings bank to pay. A majority of New York City savings banks have been maintaining the two per cent rate, but a large number have already found it necessary to reduce their rates to 1½ per cent.

It is expected that other banks that have been paying two per cent will find it necessary to reduce their rates in the latter half of the current year.

Cheap money and low investment yields seem destined to continue for a considerable period because of the country's record gold holdings, large excess bank reserves and the Government's avowed easy money policy. Between low returns and high taxes, the wages of capital are gradually being ground down to almost nothing.

Federal Deficit \$5,000,000,000

DEFICIT DAY—June 30—has come and gone again. On that date, the Treasury

officially reported the eleventh successive annual federal deficit. The cumulative deficit for the eleven-year period totals \$25,531,000,000.

For the fiscal year just ended, the federal deficit was \$5,103,000,000, as compared with only \$3,611,000,000 in the preceding year.

This was the largest deficit reported for any year in the past 11, and was

exceeded only by those suffered in the war years of 1917 and 1918.

The increase in the deficit in the past fiscal year was due entirely to defense expenditures, which accounted for slightly more than \$6,000,000,000 of Federal expense.

But other costs of Government, totalling \$6,564,000,000, were only \$613,000,000 less than in the preceding year, a reduction of less than nine per cent.

Tax receipts of the federal Government in the fiscal year ended June 30 totalled \$7,607,000,000, the greatest for any year on record and exceeding the total income for the preceding year by \$1,683,000,000. But total expenditures ran to \$12,710,000,000, or nearly 1.7 times the revenue received.

As a result of the 1940-41 deficit, the federal debt on June 30, 1941, stood at a new record high of \$48,961,000,000.

Banks Pushing Defense Bonds

IN the absence of any great publicity drive by the Treasury Department itself, the country's banking institutions, impelled by patriotic motives, are undertaking to publicize the Defense Bond program at their own expense. In recent weeks, commercial banks, savings banks, federal savings and loan associations and other types of

deposit institutions, either singly or in groups, have advertised widely, urging the public to buy Defense Bonds on a regular basis.

The value of this promotion is shown by the fact that private banking institutions are selling twice as great a volume of the bonds as are the country's post offices.

More than two-thirds of all the country's banks have now qualified as sales agencies for the bonds, and most of the remainder will soon be qualified.

The Treasury's basic idea is not merely to get people to transfer their accumulated savings into Defense Bonds, but rather to have them invest part of their future earnings on a regular, continuing basis. In line with this idea, many corporations are working out pay roll deduction plans, under which all their employees will be able to subscribe for bonds on a regular basis by allotting a definite portion of their wages or salary for that purpose.

The success of the Defense Bond program will largely determine the amount of income taxes that people will have to pay in coming years. Everyone can help to reduce his own taxes by buying bonds up to the limit of his ability. The more money the Treasury receives from that source, the less will have to be raised by direct taxation.



"This drawer is the miscellaneous file"

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A well-planned installation of high-quality Fluorescent Lighting will work wonders for *any* business in increased efficiency, stimulated sales, faster production.

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GUTH Fluorescent is ruggedly built, has carefully tested High Power Factor accessories, and engineered permanent Reflectors. Inspection by the Underwriters' Laboratories, Inc., and frequent factory check-ups assure you the highest quality at lowest cost—make GUTH Fluorescent "Your Best Fluorescent Buy"!

The EDWIN F. GUTH COMPANY
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Guth

"LEADERS IN LIGHTING SINCE 1902"

We Can Feed Ourselves If—

(Continued from page 33)

the supply side? Let us briefly state the case for the most important staples.

Wheat, the great backbone of western diets, literally is overflowing the granaries. Here is certainly one story of abundance. We had more wheat on hand at the beginning of this summer than ever before—around 400,000,000 bushels. On top of this comes the present harvest, which is another splendid crop. It will add probably 900,000,000 bushels and every elevator and bin in the country that can hold wheat will be filled. In fact, this country has a storage capacity of not much more than 900,000,000 bushels. Wheat will probably be piled on the ground in some places until the mills have ground a portion into flour.

Consumption of wheat in this country may run to something like 700,000,000 bushels a year. As for exports, the present prospect is almost nil. Canada has more wheat than she knows what to do with and, insofar as the British need and can transport more grain, they will probably take it from Canada.

In other words, we shall have a large surplus of wheat, maybe 600,000,000 bushels, to carry forward into 1942. But wheat is one of the raw materials that can be converted into eggs, milk, and meat, as well as bread, if prices favor it.

Dairy products are important now, to England as well as ourselves. Milk production in the United States has been unusually heavy so far this year; through the spring months it ran five to six per cent heavier than a year earlier. The drought which bothered the East had some effect on pastures and meadows but does not appear to have made any real impression on total milk flow.

We have about 26,000,000 milk cows and heifers, the largest number on farms since the heavy liquidation after the drought of 1934. Of course, it is impossible to hurry any large number of cows or heifers into milk so that any expansion program must depend largely upon heavier feeding, especially of the concentrated high protein feeds.

In early June the Secretary of Agri-



This country's one priceless essential is producing capacity where we have the edge on any other land in the world

culture stressed the desirability of increasing our cheese production by about one-third and evaporated milk by a fourth. He gave point to the situation by suggesting that many American families doubtless could, and readily would, forego eating cheese so that the supply for Britain might be larger.

Stocks of cheese in storage June 1 (120,000,000 pounds) were about 50 per cent larger than the five year average, and there were around 56,000,000 pounds of butter in cold storage, a third more than average. But this country consumes more than 2,000,000,000 pounds of butter and more than 700,000,000 pounds of cheese a year.

Hogs are on down trend

THEN we come to the matter of pork. Hog production tends to fluctuate in cycles of around four or five years in length. After the great drought and feed shortage of 1934, there was a heavy liquidation; but then hog numbers were again brought back to a peak of some 60,000,000 head by 1939. Last year they were on the decline again; hog prices were so low in comparison with corn that farmers sold off their hogs, down to about 53,000,000 head on farms at the beginning of 1941.

The 1940 pig crops were smaller than those of 1939 and the 1941 spring crop was about like that of last year. This fall's pig crop may turn the tide and show some increase in response to higher prices. But the conversion of present stocks of corn into pork will not really begin to show up on a large scale until next year.

Hog production has increased sharply in Canada since 1938, due to cheap feed and British needs. The Anglo-Canadian agreement of last fall will take up all of Canada's surplus bacon through this year.

There is a good sized stock of pork in cold storage in this country—around 800,000,000 pounds or 50 per cent more than the 1936-40 average. The stock of lard in storage is more than 350,000,000 pounds, or more than twice the average.

Probably ten per cent more chickens are being raised on our farms this year than last. Up to summer, however, total egg production was about like that of last year.

The stock of eggs in cold storage (9,700,000 cases, June 1) is about the same as a year ago and average.

Eggs are one of the foods the British want in quantity. They are having to kill off their flocks for lack of feed and are looking to us as the only source of large supplies.

Sugar is another of the essential foods which, along with wheat, meat, and fats, was so urgently called for in Europe during the other war. The supply came to be short then; but that is not the case today, except in the sense that sugar must be moved over the oceans and ships are getting scarce.

There is plenty of sugar. The problem is to move it. The total world supply of sugar for the 1940-41 marketing year was placed at 42,300,000 tons, raw value, the largest on record. The outlying supply available for this country through the

year exceeds the marketing quota, which, incidentally, has been raised twice so far this year. Stocks on hand in the continental United States May 1 totaled 1,909,000 tons. Annual consumption is about 6,850,000 tons. But question marks surround the ships that bring Philippine and perhaps Hawaiian sugar to us—a matter of 2,000,000 tons a year—and, should that portion of our supply be cut off, it would tighten the sugar situation here. Moreover, Britain has got to be fed out of sugar grown on this side of the Atlantic: Java and other distant sources are now out of her reckoning. All told, the figures on sugar supplies are reassuring enough; but the growing disruption of trade and especially of shipping could conceivably render these supply figures somewhat academic.

When it comes to vegetables, this country has been well blessed in recent years. The development of new areas in the Southwest and around the Gulf has put a year-round flow of fresh vegetables into northern markets as well as providing large packs of the canned products.

Supplies of truck crops in general this summer are perhaps not quite as large as a year ago. However, the acreage planted to ten important truck crops for canning or processing is substantially larger this year than last. The food-for-defense program of the Department of Agriculture laid stress upon the need for canned tomatoes to send to England, a 50 per cent increase in the pack of tomatoes this year over last was urged, and it appears that the acreage actually



WHEN

an impartial joint committee of two national organizations, after analyzing heating in approximately 1,000 buildings, *reported comparative efficiencies as follows:

RATIO OF STEAM CONSUMPTION FOR TYPE OF HEATING SYSTEM

System a.	1.20
b.	1.08
c.98
d.97
Dunham.93

**DUNHAM LED
IN FUEL SAVING**

RATIO OF STEAM CONSUMPTION FOR TYPE OF CONTROL APPARATUS

System a.	1.13
b.	1.11
c.	1.05
d.98
f.97
Dunham.76

**DUNHAM LED IN
CONTROLLABILITY**

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Trained factory engineers near you who understand and can fit air conditioning to your local weather conditions.

☒ 111 Years' Engineering Experience

A world-wide reputation in designing and manufacturing precision equipment for over a century.

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has been enlarged about 11 per cent over last year. Substantial increases have been reported in the acreages of peas, beets, sweet corn, beans, and the like. There has been some magazine talk of a nation-wide "defense garden" program. Perhaps by next year conditions will favor an organized campaign of this kind. But, when all is said and done, it is the commercial growers who are, and probably will continue to be, our mainstay for these foods.

One field of food processing which is being explored to an interesting degree and which may feel a much further stimulus from the British necessities is the dried food industry. The need of sending across large quantities of highly concentrated foods, which can be stored in small space on the ships and planes, is pushing a rapid expansion of dehydration processes here in eggs, milk and vegetables.

A growing food industry

OUR present capacity for producing dried eggs is about 10,000,000 pounds a year. This quantity is produced normally in the four months from the middle of March to mid-July. Measures have been taken to lengthen this operating season and to work with longer shifts per day. Competent estimates suggest that we can push the output of dried eggs up to 50,000,000 pounds a year within a reasonably short time. Since a case of shell eggs or 30 dozens makes about ten pounds of dried eggs, it can readily be seen that this would be a lot of eggs.

Most of our fruit drying industry is on the Pacific Coast. It is estimated that the West Coast could produce from 700 to 800 tons a day and the plants in New York State, most of which are small farm plants, 100 to 200 tons a day in addition. It is possible that many of these fruit drying plants could be shifted to vegetables with fair efficiency.

The main outlet now for dehydrated vegetables is soup. One drawback in this field is the great difficulty, if not impossibility, of preserving the original vitamins in the vegetables. Last year this country produced somewhere between 4,500,000 and 5,000,000 pounds of dehydrated vegetables. It is thought possible that, if production were put on a 24 hour basis throughout the year, we could step up this output by six or seven times, although this would presuppose various favorable circumstances, including a continuous supply arranged through the whole year. Only about a dozen firms now produce dehydrated vegetables. The possibility, however, of building up a nourishing ration in concentrated form which could be stored in populous centers and used to feed large numbers of persons in a sudden emergency is an intriguing project, even though it is not a matter of economic importance in the larger problem of total supply and consumption.

The question of dried milk now looms large in the program of aid to Britain. In 1940 this country turned out about 2,500,000,000 pounds of evaporated milk and about 61,000,000 pounds of condensed milk. There is apparently no serious problem of plant capacity for

dried milk. If there is any problem here, it is in the milk supply itself. In that connection, it is interesting to note that we exported in 1940, in all forms of milk products, the equivalent of 478,000,000 pounds of milk. Dairy experts in the Department of Agriculture estimate that we can easily increase this figure four times; that is, we can send dairy products overseas to an equivalent of 2,000,000,000 pounds of milk without interfering with our own domestic requirements but even that would be far below the British wants.

One item of universal interest in all this food question we have not yet mentioned—the matter of prices. Although the picture of food supply for the country is reassuring, the fact remains that prices have advanced on numerous items and various underlying circumstances suggest further rises.

In the first place, there is the effect of enlarged demand from industrial centers. Large increases in employment and pay rolls have put thousands of families in a position to expand their food budgets, especially in the direction of such things as butter, fresh eggs, fresh fruits, and more meat.

Another perfectly natural influence toward higher prices of farm products is the higher costs of production. The men who are producing these things are having to do so with more expensive feed, labor, machinery, equipment, fertilizer, and farm supplies. All of these factors ordinarily are eventually translated into higher prices for farm products.

Distribution costs are rising also. Here again the shipping situation makes itself felt. In sugar, as already noted, lack of ships could mean direct cuts in supply, in time. It could further affect our supply of fats and oils, especially such things as copra and coconut oil; imports of oilseeds and oils normally account for ten to 15 per cent of the total supply of fats available in this country.

Then there is the factor of legislation. Farmers, processors, handlers, and merchants all feel their costs being raised through higher taxes. Such laws as that raising the loan value of certain products to 85 per cent of parity have an effect.

Finally, there is the over-all influence of wartime, emergency atmosphere in the markets; of the expanding economy and general upswing all along the line. Unforeseen contingencies arise one after another and are liquidated more expensively than was expected. Scarcities loom up suddenly and are met with extra inducements to produce more. There is a tendency on all sides toward forward buying, stocking up, including the inevitable fringe of speculative activity that goes with such situations. The government itself comes into the markets as a huge new buyer.

The whole psychology of the trading situation leans toward bullishness. Many elements in the American-British position, both present and potential, are most reasonably to be interpreted as meaning higher prices for various foodstuffs; already the rise has been substantial in some lines. However, the Government is making unusual efforts to stabilize prices and prevent a runaway—with what ultimate success only time can tell.

Good Neighbors—Business Style

By CHAUNCEY D. SNOW

IN "the new Europe" one of the catchwords of these times is "collaboration." An American commentator has voiced the thought that 100 per cent collaboration there means 100 per cent benefits on the Reich's score-sheet, and "horse-collars" for the other parties.

But something quite different in the way of collaboration seems to be taking shape in the American Republics—a beginning of genuine business collaboration that offers promise for the future. It started in the Conference of American Associations of Commerce and Production, at Montevideo, Uruguay, May 28 to June 3.

For years we have heard of Pan-American commercial conferences and Pan-American financial conferences. These have been part of the mechanism of governmental cooperation within the framework of the Pan-American Union. They have posed many of the important questions relating to economic development in this hemisphere, have pointed the way to sensible courses of action, have held the interest of many business men and attracted the attention of governments all over the world. These conferences, however, have been official, governmental.

Business, not government

THE Montevideo business conference of 1941 was not governmental; it was business. For the first time, the national business organizations of the American Republics from north of the Rio Grande to south of the River Plate got together. There had been regional conferences before, but no general one. This time 20 of the republics had business representatives in attendance—Haiti alone was not represented. The 105 individuals attending represented a total of 45 national business organizations in the Americas—general business, manufacturing industries, finance, mining, agriculture, and foreign trade. They included presidents or other officers of many of the important business concerns in this hemisphere, and half a dozen ambassadors and ministers. The latter were not present as officials but rather as authorized members of the business delegations from their respective countries.

The Conference was called on the

initiative of the National Chamber of Commerce of Uruguay, with the Rural Association, the Chamber of Industries and the National Mercantile Chamber of Uruguay joining in the invitation. Plans for the meeting had been under way for a year. The working sessions were held in the splendid new Bolsa building, home of the Uruguayan National Chamber of Commerce. The formal closing session was held in the stately Legislative Palace of the Uruguayan Government.

At the opening session, James S. Kemper, heading the delegation of 17 representatives of the United States Chamber of Commerce, the National Foreign Trade Council, and the Chamber of Commerce of Puerto Rico, was by acclamation tendered the Presidency of the Conference. He declined in favor of President Jose Brunet, of the Uruguayan National Chamber, who had served as Chairman of the Organizing Committee. Mr. Kemper was designated as the Honorary President.

From the opening addresses by the heads of the various national delegations through all the general sessions and group meetings a recognition of the need and the desire for the business organizations of the American countries to work together was evident. Conditions produced by the war had brought home to the business men in all the American countries the need for strengthening their business organizations and a realization of the benefits of joint endeavor.

The Montevideo Conference offered an opportunity for each man and each delegation to help others to get their bearings on the business issues in the Western Hemisphere in these days when normal world-trading has been disrupted. To be sure final declarations were adopted, 30 of them—every international "Conference" has to have final declarations! In this case no formal cooperative mechanism existed. The representatives of business organizations in the 20 countries, though familiar with the attitudes of their colleagues in their own associations, came with no authority to commit the organizations "back home." Accordingly the final declarations as passed were important chiefly as reflecting points of view prevailing in this group of business people of the Americas.

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The most significant declaration of the meeting, from the standpoint of most of those taking part, was the decision to form a Permanent Council of American Associations of Commerce and Production, with a headquarters office to be set up at Montevideo, and an executive committee and staff to arrange for future conferences as occasion makes advisable. The declaration outlines the form of organization of the Council, indicates a restricted field of research work in preparation for meetings, and provides a basis for membership and financial support.

In the past the business organizations in the Latin American countries have not been notable for their participation in international movements. Some of them have taken part in smaller regional conferences. Only Brazil and Peru have had National Committees of the International Chamber of Commerce, and few of the commercial groups in the other countries have held memberships in the International Chamber. At Montevideo, however, it was obvious that the desire to cooperate with other bodies at least in this hemisphere, had been awakened.

Whenever business men get together they discuss governmental interference with business. At Montevideo those from the United States were struck by the fact that their colleagues from below the Rio Grande took the same interest in the subject and apparently held the same fundamental views on it as do U. S. business men. The first of the 30 final declarations dealt with "State Interventionism." It decried governmental

price-fixing and favored limitation of governmental intervention to promotion, stimulation and defense of production and consumption.

Industrialization was discussed from many angles: development of new industries, extension of home industries, use of American-produced raw materials, the opportunities for use of American material offered by new "synthetic" industries as well as the problems of competition presented by such industries. Other scientific and industrial subjects included mechanical research, efficiency for reduction of costs, fiscal policies to encourage investment of local and foreign capital, concerted action by governments and trade associations in countries producing the same products for world trade, extension of uniform commodity standards, etc.

With an eye particularly to enlarging Inter-American trade interchange, these topics in the trade field were dealt with: export trade promotion, removal of unwarranted trade barriers, setting up an Inter-American Institute of animal and vegetable sanitary policing, reduction of consular fees, and facilitating commercial travel. Customs union proposals, long advocated in some of the Latin American countries, were again presented at Montevideo, with recommendation of "exceptions" from most-favored nation treatment for open-end agreements between bordering countries, susceptible of gradual extension to the other American countries.

In view of the wartime tightening of available maritime transportation facilities, subjects in the ocean-trans-



"Can I drop you someplace?"

port field drew a variety of recommendations, ranging from proposals for establishment of new national merchant marines in the American countries, new uses of specialized cargo ships and new specific assurances of service to particular sections, to recommendations of free zones in ports and special reduction of Panama Canal rates. The United States delegation specifically expressed reservations on some points.

Our delegation, however, including many men of long experience in the Latin-American trade, was distinctly impressed by the need of maintaining shipping services between the United States and the other American countries, and addressed an urgent message on the subject to President Roosevelt and Admiral Land.

Financial angles were discussed loud and long. The Conference referred to "the grave difficulties resulting from instability of the value of the currencies and the rigidity of exchange control." After mentioning the proposal of an Inter-American Bank, it urged Inter-American co-operation to solve the existing monetary difficulties and recommended that the Inter-American Financial and Economic Advisory Committee should complete its studies of a possible continental organization of some appropriate mechanism, as contemplated by the first meeting of the Finance Ministers of the American Republics.

Delegates worked seriously

IN recommending governmental policies that would encourage the investment of capital, the Conference pointed out the desirability of provisions by which foreign investors may receive interest and amortization payments instead of having funds frozen within the countries where the foreign capital is used.

Men from all the national delegations commented on the seriousness with which the representatives settled down to a crowded week of discussions of business questions, the complete avoidance of political discussions, and the constant atmosphere of cordial relations between all the national groups. The language question—Spanish, Portuguese, and English were all used freely—provided little difficulty. Good interpreters were at hand and some men in each national group had a knowledge of all the languages.

The first Conference of American Associations of Commerce and Production was regarded by the participants as distinctly a success. It promises a new and valuable channel for "collaboration" between the business groups in this hemisphere.

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